



Mastitis

What is Mastitis?

Mastitis is a term used to describe inflammation of a mammary gland (breast).

In most cases, mastitis is caused by a bacterial infection. Trauma to the nipple or teat canal can allow bacteria to enter the teat canal, traveling up into the mammary gland and creating a bacterial infection. Even in the absence of trauma, a female dog living in unsanitary conditions may be exposed to large quantities of bacteria and other irritants, allowing this ascending infection to occur.

Less commonly, mastitis can be observed without evidence of infection. Trauma to the mammary gland, or prolonged periods of milk accumulation without milk removal, can lead to inflammation within the mammary gland.

Mastitis is most frequently seen in the postpartum period, after a dog gives birth. Many cases follow sudden weaning (which can lead to excessive milk accumulation within the gland) or the death of a puppy or kitten (leading to decreased milk removal from the glands).

What are the clinical signs of mastitis?

“As mastitis progresses, the infected mammary gland will become increasingly swollen, inflamed, discolored (frequently red or purple), and painful.”

In mild or early cases of mastitis, the first sign of a problem may be that the nursing young are not gaining weight as quickly as expected. Careful examination may reveal slight swelling or inflammation of the affected mammary gland. In these stages, the affected dog often does not show any signs of illness and may show only minimal discomfort.

As mastitis progresses, the infected mammary gland will become increasingly swollen, inflamed, discolored (frequently red or purple), and painful. The mammary glands also may become ulcerated, with open wounds and scabs visible on the mammary gland. Milk expressed from the affected mammary gland may contain visible blood or pus, or milk may appear visibly cloudy or thickened in consistency.

In severe cases, affected dogs may appear visibly ill. The affected mammary gland may appear dark purple or black in color, as the tissues begin to die off due to overwhelming infection and decreased blood supply. Affected dogs may become lethargic, develop a fever, refuse to eat, or begin vomiting, as the infection enters the bloodstream and they develop signs of sepsis.

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How is mastitis diagnosed?

In many cases, mastitis may be diagnosed based on physical examination alone. Occasionally, laboratory tests may be required to confirm the diagnosis and/or rule out other conditions.

Laboratory tests that may be recommended for mastitis include the following:

- Complete blood cell count: This blood test assesses the levels of red blood cells, white blood cells, and platelets in your dog's blood. Changes in the white blood cell count indicate infection and the magnitude of change in the cell counts may help your veterinarian determine the severity of the infection.
- Milk cytology: In this test, a small sample of milk from the affected mammary gland is examined under the microscope. The presence of white blood cells (pus) or bacteria confirm a diagnosis of mastitis.
- Bacterial culture: In some cases, especially when mastitis is attributed to infection and is not responding to commonly-used antibiotics, bacterial culture may be required. Milk will be collected from the mammary gland in a sterile manner and sent to a laboratory so that the bacteria can be isolated and characterized. Once the bacteria are isolated, antibiotic sensitivity testing can be used to determine the most effective antibiotic for treatment.

How is Mastitis treated?

“Severe cases of mastitis may require hospitalization for intravenous fluid therapy and injectable medications.”

Most dogs with mastitis can be treated on an outpatient basis, with oral antibiotics and pain medications. This treatment is ideal, as it allows the dog to remain at home with her puppies.

Your veterinarian may recommend hand-milking the infected gland. This can alleviate discomfort, while also encouraging blood flow and promoting healing. Hand-milking should be performed every 6 hours.

Cabbage leaf compresses also can also be used to decrease pain and inflammation. Cabbage leaves should be secured to the affected mammary gland using a bandage or fitted t-shirt. Once applied, they should be left in place for 2-4 hours. At this time, the cabbage leaves should be removed for 3-4 hours before reapplying for another 2-4 hours. The puppies can be allowed to nurse from the affected gland when it is uncovered.

Severe cases of mastitis may require hospitalization for intravenous fluid therapy and injectable medications. In some cases, your veterinarian may recommend surgical removal of

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necrotic or severely-infected glands. For this reason, it is important to treat mastitis as soon as signs are noted and give all medications as prescribed by your veterinarian.

What is the prognosis for mastitis?

Most cases of mastitis have a good prognosis. Signs typically resolve in 2-3 weeks with appropriate treatment.

In cases of severe mastitis, or when the dog develops a systemic, blood-borne infection, the prognosis is guarded, even with aggressive treatment.

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