

## **PYOMETRA**

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Pyometra is **bacterial infection within the uterus** of unspayed female dogs and cats. It occurs when the uterine lining is exposed to progesterone during the diestrus stage of the female cycle and develops changes called Cystic Endometrial Hyperplasia (CEH). Bacteria from the vagina and/or vulva then ascend and set up an infection in the uterus. Veterinarians typically talk of pyometra being “**open**” or “**closed**”. The difference is basically whether or not the cervix is open and puss/purulent material drains from the vulva. This classification is important because closed pyometras may go unnoticed by the owner for longer periods, present later in the course of the disease and be much more critical than open pyometras. This being said, either form of **pyometra is life-threatening and should be treated as an emergency situation**. If left untreated, bacteria and/or their toxins can gain access to the bloodstream, leading to **endotoxemia/septicemia, shock and death**.

The **most common clinical signs include**: lethargy, inappetence/anorexia, possibly a purulent vulvar discharge, increased drinking and urination and vomiting. **Diagnosis** by a veterinarian relies on the presence of such clinical signs, palpation of the enlarged uterus and characteristic radiograph/x-ray and/or ultrasound findings. Routine blood work is indicated to determine whether sepsis and other organ (ex. kidney) damage is present. Cytologic analysis and culture with sensitivity of vaginal excretions may be used to help confirm the diagnosis and direct antibiotic therapy.

As mentioned above, pyometras should always be treated as emergency situations with very aggressive therapy. IV fluid and antibiotic therapy are initiated right away. **Once the animal is stable enough, it is taken to surgery for an ovariohysterectomy (spay)**. In breeding animals, attempts are sometimes made to treat an open pyometra without surgery. Often the results are not good and overall this method of treatment is not widely accepted. It should only be attempted in open pyometras that present stable, with no signs of endotoxemia/septicemia. The owner must be aware that if the animal does not do well with just medical management and they decide to pursue surgery, their pet is a much poorer anesthetic and surgical candidate.

**The outcome for pyometra varies widely, depending on how ill the patient is on presentation**. A relatively stable animal that is not suffering from endotoxemia/septicemia has a good prognosis. The septic animal has a much more guarded to poor prognosis. It can be very difficult to get this patient stable enough for anesthesia and surgery in a reasonable time frame. Even if/when they survive anesthesia and surgery, they may succumb to sequela of sepsis, such as DIC (Disseminated Intravascular Coagulation), kidney failure and ARDS (Acute Respiratory Distress Syndrome). The owner must be prepared for the pet to take a turn for the worse at any time. Patients that present somewhere in between these two extremes (the majority of patients) have a prognosis somewhere between, usually fair.

The most important thing for owners to understand is that having an unspayed female dog or cat is a gamble. If signs of pyometra are noticed, they **must act promptly and seek aggressive veterinary care. Surgery is the treatment of choice.** The prognosis varies greatly and these patients are **usually very dynamic and unpredictable.**