



ABOUT THE DISEASE

When female patients are kept intact (not spayed), they are at an increased risk for the development of a uterine infection, also known as a **pyometra**. This disease is more common in canine patients, typically occurring after 6-8 years old, and often develops 6-8 weeks after a recent heat cycle. This disease is one of the main reasons of the importance of spaying.

Pyometra is caused by a dysfunction of the ovary that results in the inability to exit the normal heat cycle. A **pyometra** is not simply a condition that can be fixed with oral antibiotics. The ovary is the focus of treatment either through surgical removal or injected hormones.

Most patients will only show symptoms once they are 6-8 weeks into the infection, and then show abrupt clinical decline. In these patients, toxins and bacteria leak across the uterine walls, into the bloodstream, and cause life-threatening toxic effects. Death often follows when left untreated.

There are two main types of **pyometra**:

- Open **Pyometra** – Cervix is open, allowing pus to discharge from vagina; often less ill.
- Closed **Pyometra** – Cervix is closed, retaining all pus within the uterus; often more severely ill.

Symptoms often include:

- Poor appetite
- Vomiting and/or diarrhea
- Excessive thirst
- Abdominal distension
- Open **pyometra** patients will have visible pus leaking from vagina

OBTAINING A DIAGNOSIS

A physical examination with a veterinarian and clinical history are often enough to yield a presumptive diagnosis.

Abdominal ultrasound is the quickest and easiest method to diagnose this condition. X-rays (radiographs) are an option, but less sensitive in **pyometra** patients with a small uterus.

Routine laboratory testing may or may not show changes in white blood cells, but a widespread infection and toxin exposure is presumed.

TREATMENT

The most obvious part of management is that **pyometra** patients are spayed to remove the infected uterus. However, this is not a simple and routine spay procedure.

Knowing that this disease takes 6-8 weeks to manifest, many patients have had subclinical disease for this period of time. This means that by the time they develop symptoms, they are not stable for surgery and are often in septic shock. These patients require IV (intravenous) fluid support to regain blood pressure and hydration, one or a combination of antibiotics to combat uterine and systemic infections, and other medications for symptomatic care (vomiting, diarrhea, etc.).

Many patients are hospitalized for 24-36 hours after surgery to ensure stability and to increase chances of success.

TIPS FOR SUCCESS

- If you plan on breeding, cut the patient from the breeding program at 6 years old and have them spayed.
- If you do not plan on breeding, reduce multiple-condition risk by having the patient spayed.
- Do not assume these patients undergo a routine spay procedure. They are often septic, toxic, and near-death when they present themselves. They require more intensive care.
- Oral antibiotics are not a “quick fix” for **pyometra**.