

## Anal Sac Infections

**Also Known As:** Anal sac impaction, anal sacculitis, anal sac abscess, impacted anal sacs, infection of the anal sac, abscessed anal sac.

**Transmission or Cause:** The cause of anal sac disease is unknown. Smaller dog breeds, such as Chihuahuas and poodles, are most often affected. Excessive anal gland production, soft feces or diarrhea, poor muscle tone, and obesity also contribute to higher risk of developing anal sac disease. Anal sac abscess tends to occur after an impacted anal gland has become so severely swollen and infected that the anal sac forms an abscess and ruptures.

**Affected Animals:** Although any dog can be affected, smaller breeds such as chihuahuas, dachshunds, and miniature or toy poodles are more commonly seen by veterinarians for anal gland problems. Cats suffer from the disease less commonly.

**Overview:** Anal sacs are the reservoirs for the secretions of anal glands which are located on either side of a dog's anus, at approximately four and eight o'clock. These sacs contain liquid secretions from the anal gland, which, in healthy animals, are normally pale yellow-brown to grayish in color. The contents are usually emptied during normal bowel movements, or when a dog is nervous or scared. In most animals, these sacs empty easily. However, some dogs, especially small breed dogs, are not able to empty the sacs properly and become susceptible to anal sac disease.

A dog with anal sac disease may scoot across the ground in an attempt to relieve the sensation of pressure and irritation around its rectum. Dogs with this illness will also chase their tails and bite or lick their rear ends to alleviate the discomfort.

There are three progressive stages of anal sac disease. The three stages include anal sac impaction, anal sacculitis, and anal sac abscess. Anal sac impaction occurs when the liquid accumulates and thickens, causing the anal sacs to become distended and difficult to empty. A veterinarian can usually relieve the impaction by rectally squeezing the grape-like sacs individually until the thickened substance is expressed.

The second stage of the disease is known as anal sacculitis, or inflammation of the anal sac. In this stage, the anal sac material continues to accumulate and may become infected by bacteria. The third, and final, stage is abscess formation. This stage is the most severe and the most painful of the anal sac diseases. It may require surgical treatment. Sometimes the abscess can rupture through the skin, leaving an oozing red hole that is visible next to the anus. All stages of anal sac disease are treatable by a veterinarian.

**Clinical Signs:** Signs of anal sac disease include scooting across the floor; licking the area around the anus; tenesmus, or straining to defecate; biting or chasing the tail; discharge, swelling, or pain around the anal area; and behavioral change. When an abscess ruptures, a purulent discharge may be seen draining from the lesion. The area surrounding the abscess may appear red, swollen, and painful.

**Symptoms:** See Clinical Signs.

**Description:** Anal sac disease occurs in progressive stages: impaction, inflammation, and abscess formation. Impaction of the anal sacs occurs when the anal gland secretions contained in the anal sac thicken so that the sac is unable to empty during a bowel movement. Inflammation of the anal sac, or anal sacculitis, is an infection usually resulting from impaction; it may also be caused by bacterial growth within the anal sac.

During the sacculitis stage, the impacted fluid may become thinner and fill with pus. Abscess occurs when the inflammation of the anal sac has reached an extreme stage; at this point, a red-brown substance will be seen coming from the sac, which will be enlarged, hot, red, and very painful. Usually, the abscessed sac will rupture, leaving a hole near the side of the rectum that oozes a foul-smelling liquid. The tissues surrounding the abscess will swell up, and this will worsen the dog's inflammation and pain.

**Diagnosis:** Diagnosis and staging of anal sac disease is made clinically with a rectal examination. Impacted or swollen anal sacs are often quite painful and some dogs may need sedation before a thorough examination can be done. Normal anal sac fluid is clear or pale yellow-brown; thick, brown or yellowish-green secretions are typical of animals with anal sac disease.

If the inflammation of the anal sacs has led to an abscess, a large, red, and swollen area may be visible on the side of the anus. A rupture of the abscessed sac can result in the oozing of a foul-smelling liquid material.

**Prognosis:** Expression, or applying pressure to the anal sac, is a successful method for removing impacted secretions from the anal glands, but in many cases, this procedure must be performed on a regular basis to prevent recurrence. Antibiotics most often eliminate the infection. If abscess has occurred, the abscessed anal sacs usually heal. However, all animals with anal sac disease usually have to have their anal sacs expressed on a regular basis to prevent further problems.

**Treatment:** When the anal sac disease is at the impaction stage, the most common treatment is an outpatient procedure called expression in which the veterinarian applies pressure to the anal glands until the thickened secretions are expelled from the sacs. Sedation may be needed if the dog is nervous or is in great pain.

For the anal sacculitis stage of the disease, the same expression procedure is performed; afterwards, an antibiotic-steroid combination ointment is applied directly to the anal sac. In addition, the examining veterinarian may prescribe oral antibiotics to help fight infection. To help determine the appropriate antibiotic, the veterinarian may also need to take cultures to identify what type of bacteria caused the sacculitis.

When anal sac disease is at the abscess stage, a surgical procedure is required if the abscess has not already ruptured. The veterinarian, after sedating the dog or placing it under general anesthesia, will surgically open the infected anal sac to clean out the infected material and drain the remaining liquid.

Following surgery for ruptured abscesses, an antibiotic-steroid combination ointment will be applied directly to the anal sac to fight infection and inflammation. An oral antibiotic probably will be prescribed as well. As in the treatment of sacculitis, culture of the abscess may be necessary to help determine the best antibiotic medication. If infection continues after the surgery, surgical removal of the anal sac may be required.

**Prevention:** Expression of the anal sacs every few weeks or months often will help prevent anal gland fluid from accumulating and becoming thickened again. High fiber diets have been shown to help prevent anal sac disease in at-risk dogs, especially those that are obese.