

ANAL SAC REMOVAL, ELECTIVE

Anatomy:

Dogs have two anal sacs (glands) beneath the skin which are located at the four and eight o'clock positions of the anus. (Figure 1) The anal sac duct opens into the edge of the anus. The anal sacs and ducts are closely associated with the anal sphincter muscle. When the anal sacs are expressed, fluid will leak from the ducts. There are multiple reasons why the anal sacs may become diseased. Nerve dysfunction in the area of the anal sacs, obesity, and abnormal anal sac secretions may contribute to the development of anal sac disease. Abnormal anal sac secretions may occur secondary to skin infections, perianal fistulas (which are abnormal connections between the anus and skin), and inflammatory bowel disease.

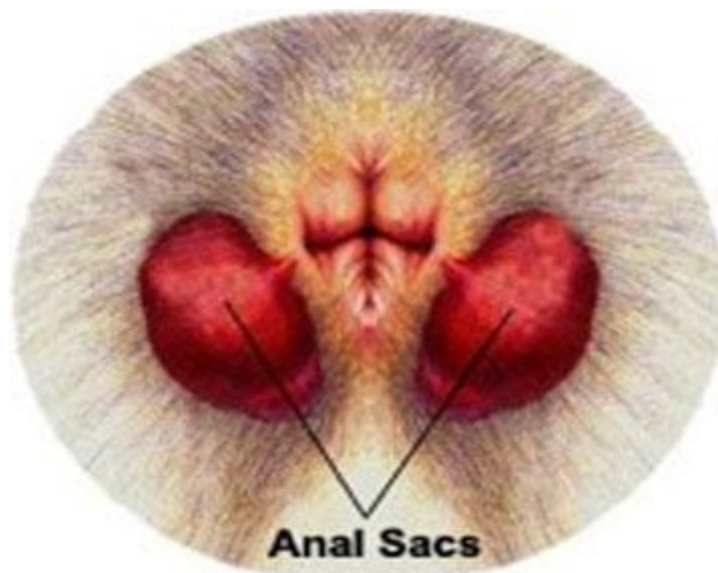


Figure 1. Anatomic location of the anal sacs under the skin. (Courtesy of Vet West Animal Hospital)

Indications for Anal Sac Removal:

The three most common diseases of the anal sacs include impaction, sacculitis (inflammation), and abscessation (infection). Anal sacculitis and abscesses are seen more commonly in small breed dogs, especially Chihuahuas and Poodles. Concern for anal sac cancer is another indication to remove the glands. Anal sac tumors in dogs are relatively uncommon; however, they are typically malignant.

Symptoms:

The most common signs of anal sac infections include scooting, licking, and biting at the anal area and tail base, inability to get comfortable when sitting, and abnormalities when defecating (constipation, straining, or diarrhea). For dogs with infection or inflammation of the anal sacs, it is important to realize that a more serious condition such as cancer (See Anal Sac Adenocarcinoma) or a perianal fistula may be present. A perianal fistula is an abnormal connection between the anus and the skin surrounding it.

Surgery:

Anal saccullectomy is a surgical procedure to remove one or both of the anal sacs. Before surgery is considered, infection and inflammation should be treated with the appropriate medications from your veterinarian. If the anal sac is removed with excessive inflammation or an infection present, there is an increased risk of complications after surgery. Anal saccullectomy is most commonly performed using a closed technique. An incision is made through the skin over the anal sac and it is dissected free from the surrounding tissues. (Figure 2) The duct of the anal sac is sutured closed to prevent leakage and the anal sac is then removed. (Figure 3) The anal sac will be submitted for biopsy if there is concern for cancer.

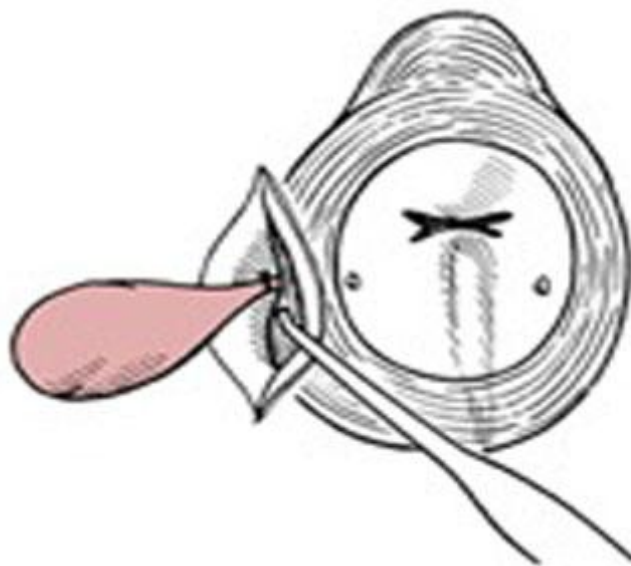


Figure 2. The anal sac has been dissected free and the duct is tied off with suture. (Courtesy of Novartis Animal Health)

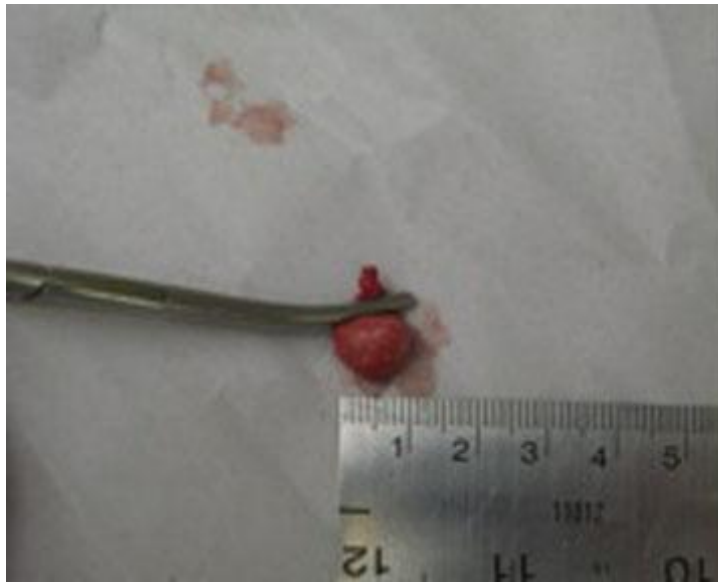


Figure 3. Photograph of an anal sac after removal.
(Courtesy of Southdown Animal Clinic)

Post-operative Care:

After surgery, antibiotics and pain medication are used. An e-collar is imperative to prevent licking or biting at the incision, which greatly increases the risk of infection or an open wound at the surgery site, called dehiscence. The e-collar is worn for the first 7-14 days after surgery. Activity is restricted for 3 weeks after surgery to prevent trauma to the surgery site from running, jumping, or playing.

Potential Complications:

Complications after anal sac removal are rare. Short-term complications after anal sac removal include infection, scooting, inflammation of the skin, drainage from the surgery site, and swelling. Long-term complications may include fecal incontinence, fistula formation, and stricture formation (abnormal narrowing.) A fistula is an abnormal passageway connecting deeper tissues to the surgery site. Persistent infections with drainage are usually associated with incomplete removal of the anal sac or its duct. A second surgery may be required to remove the residual tissues. Fecal incontinence may occur as a result of trauma to the anal sphincter muscle or nerves in the area of the anal sac during removal. In most cases, patients recover completely within 10-14 days and have an excellent longterm outcome.

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