



**Veterinary Emergency  
+ Referral Center**  
of Hawaii

**Ettinger: Textbook of  
Veterinary Internal Medicine, 7th Edition  
Prostate Disease  
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**What is prostate disease?**

The prostate is an accessory sex gland located in the pelvic cavity, where it encircles the urethra (the tube connecting the urinary bladder to the outside) at the bladder neck. This gland shrinks and atrophies after castration as its size and function are under the direct influence of male sex hormones. Diseases of the prostate are relatively common, affecting 1 in 40 dogs. They are seen mostly in older sexually intact dogs, at an average age of 9 years. Neutered dogs can also be affected. Prostatic diseases are extremely rare in cats, with the exception of uncommon cancers.

**What are the symptoms of prostate disease?**

Symptoms of prostatic disease usually include the following:

- The presence of blood in the urine
- Bloody discharge from the urethra
- Straining to defecate
- Decreased fertility and loss of libido (intact dogs)

Depending on the type of disease, hind limb weakness or general illness can be seen. Those symptoms include the following:

- Decreased appetite
- Vomiting
- Weight loss
- Depression
- Fever

**What tests are needed?**

- A first suspicion of prostatic disease is based usually on the history and complete physical exam, including a digital rectal exam.
- Laboratory analysis of blood and urine, and diagnostic imaging such as radiographs or ultrasound further support the suspicion.
- To confirm the diagnosis, prostatic fluid can be collected and analyzed, and the prostate can be aspirated or biopsied under ultrasound guidance for bacterial culture, cytology (analysis of the cells), and histology (analysis of the tissue).

**What types of prostatic diseases exist and what treatment is needed?**

**Benign prostatic hyperplasia (BPH)** affects only sexually intact dogs and is the equivalent of the disease seen in men. The gland enlargement is a direct result of hormonal stimulation and it is considered a natural consequence of aging with 50% of intact dogs affected by the age of 4 to 5 years.

Dogs with BPH rarely manifest illness but they may suffer from the following:

- Urethral discharge
- Difficulties urinating
- Difficulties defecating
- Infertility
- Predisposition to potentially severe infections

Medical therapy can offer temporary relief and restore fertility in dogs used for breeding purposes. However, the main treatment is castration because it brings about quick and permanent resolution of the condition.

**Bacterial infections (bacterial prostatitis)** are usually from bacteria ascending from the lower urinary tract and are commonly associated with underlying prostatic diseases that alter normal defense mechanisms. Acute prostatitis can be severe and lead to life-threatening bloodstream infections. Chronic prostatitis is typically associated with recurrent or chronic urinary tract infections where the prostate acts as a source for bacteria, causing repeated episodes of disease.

Dogs affected with prostatitis usually display evidence of disease by exhibiting the following:

- Fever
- Loss of appetite
- Lethargy
- Weakness
- Lower urinary tract symptoms, i.e., frequent and painful urination, blood in the urine, and straining to urinate

In addition to antibiotic and supportive therapy, the resolution of prostatitis is markedly improved by castration. In intact males, treatment is more difficult, longer, and commonly associated with recurrences. In some dogs, chronic infections can progress to abscesses and may require surgery or ultrasound-guided drainage.

**Prostatic cysts** can form within the prostate secondary to other diseases such as BPH and prostatitis (true cysts, retention cysts) or outside of the gland as a developmental anomaly (paraprostatic cysts). Treatment of true cysts requires addressing the underlying disorder with antimicrobial therapy and castration. However, surgery or ultrasound-guided drainage may be necessary for the treatment of large retention cysts and for most paraprostatic cysts.

**Prostate cancer** usually affects older dogs, both intact and neutered. It is typically diagnosed at an advanced stage and these tumors display aggressive behavior. They spread to bones of the spine or pelvis, the lungs, and the lymph nodes.

Affected dogs often show symptoms of the following:

- Poor appetite
- Weight loss
- Depression
- Progressive rear limb weakness

Because of the malignant nature of this cancer with local invasion and distant spread (metastases) frequently present at the time of diagnosis, a thorough examination is indicated for the exact clarification and staging of the cancer. Treatment is most commonly unrewarding and the prognosis very poor with a typical survival of only a few months. Some forms of prostatic cancer are, however, more favorable and may respond to chemotherapy.

Dogs affected with either benign or malignant prostatic diseases can have similar problems and results of routine diagnostic tests. They warrant a thorough diagnostic workup, as they require specific therapies based on the nature of the underlying condition.