

CASTRATION/NEUTER

Associated Terms:

Gonadectomy, Testicular Tumor, Epididymitis, Orchitis, Cryptorchid, Neuter

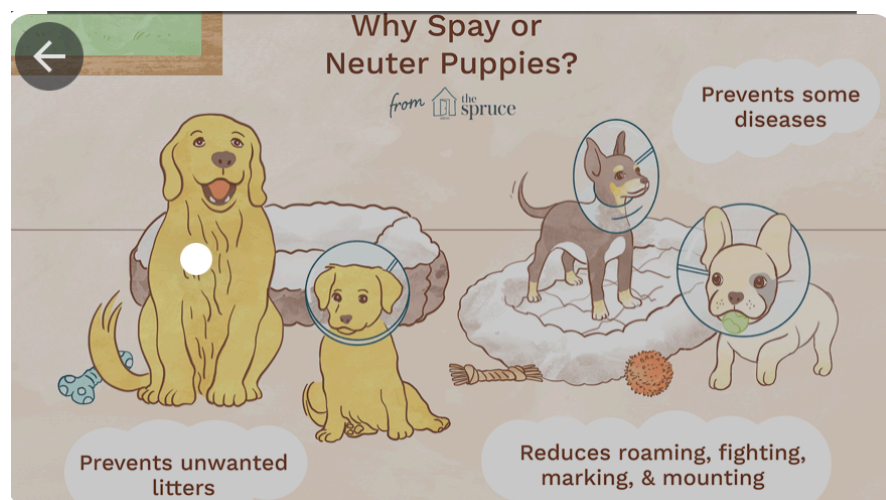
OVERVIEW

Castration in small animal patients may be performed on a routine basis for **population control & behavior modification** or may be performed for **disease control or treatment**. Intact (non-castrated) pets that reproduce in an unregulated manner may lead to companion animal overpopulation. Overpopulation is a huge problem in most municipalities across the country, recognized by crowded humane animal shelters & rescue organizations.

Specific recommendations for castration associated disease control or treatment include patients suffering from:

- cryptorchidism (one or two undescended testicles)
- testicular hypoplasia/atrophy
- orchitis/epididymitis (infection)
- severe testicular trauma
- testicular/epididymal neoplasia (cancer)
- testicular torsion
- perineal hernia
- underlying urinary tract disease (urethral calculi)
- prostatic diseases
- perianal adenomas

The role of neutering pets & future development of certain cancers or orthopedic disease remains controversial. Limited evidence in determining the appropriate age to perform routine castration exists. Discussing the pros & cons of whether & the appropriate time to perform castration should be discussed with your veterinarian.



SIGNS & SYMPTOMS

Patients presenting for routine castration for population control or behavioral modification will NOT demonstrate any clinical signs. However, animals with disease processes involving the testicles and/or epididymis may demonstrate clinical signs relating to the underlying disease process.

Patients suffering from cryptorchid testicles may demonstrate an **abdominal mass** on physical examination, which may cause clinical signs such as:

- nausea
- pain
- anorexia
- weight loss
- vomiting
- diarrhea
- hair loss
- mammary gland enlargement
- bone marrow suppression
- sexual attraction by other male dogs

Clinical signs for **testicular hypoplasia/atrophy** will typically be absent unless there is an unsuppressed action of a cell type within the testicle, which may cause:

- hair loss
- mammary gland enlargement
- male dog attraction

Infection of the testicle & epididymis (orchitis/epididymitis) will typically show signs of:

- testicular pain
- scrotal swelling
- depression
- lethargy
- fever
- anorexia

Testicular trauma may demonstrate signs of:

- scrotal swelling & discoloration
- pain

- hemorrhage
- systemic signs of shock

Tumors of the testicles & epididymis will typically demonstrate:

- enlargement of one or both testicles
- pain
- hair loss
- mammary gland enlargement
- attraction of male dogs

Patients with **testicular torsion** will show clinical signs of:

- acute pain
- testicular swelling
- depression

Signs associated with **perineal hernias** consist of:

- swelling adjacent to the rectum
- constipation
- straining to defecate
- straining during urination

Signs associated with **urethral calculi** include:

- straining to urinate
- difficulty or inability to urinate
- discolored urine
- abdominal pain
- lethargy
- depression
- lack of appetite

Prostatic diseases will typically lead to enlargement of the prostate, which may cause:

- constipation
- straining to defecate
- abdominal pain
- straining to urinate
- discoloration of the urine

Patients with **perianal adenomas** may show signs of:

- one or more growths surrounding rectal tissue
- bloody stool
- irritation of the rectal area

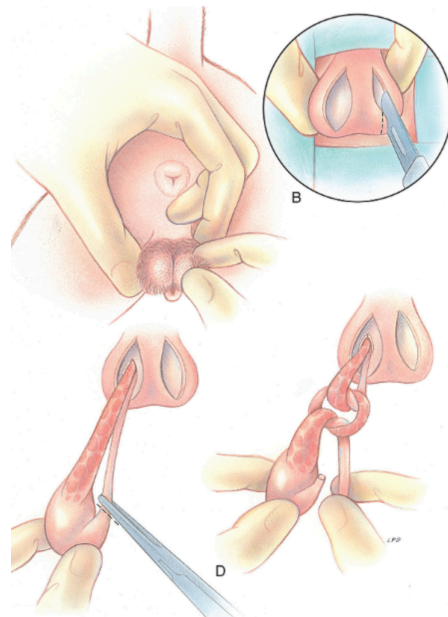
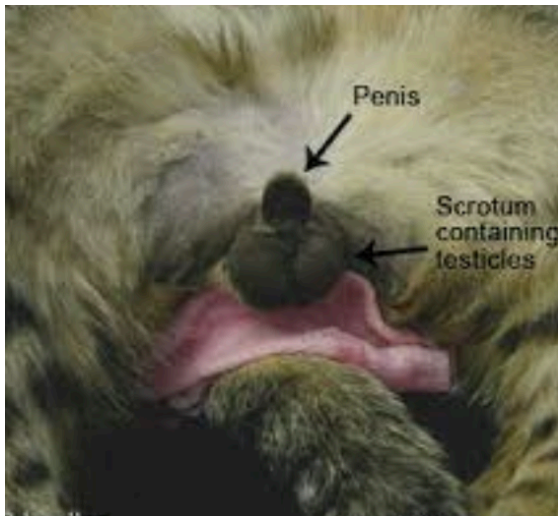
DIAGNOSTICS

Once your pet has been diagnosed with a suspected testicular or epididymal disease process, your primary care veterinarian may recommend a **full metabolic work-up**. A complete blood count, biochemical profile & urinalysis are performed to determine any evidence of concurrent illnesses or the effect of the testicular disease on bone marrow function. **Abdominal & thoracic radiographs** are indicated if there is suspicion of a neoplastic (cancer) process. **Ultrasonography** is useful to help determine the underlying disease process & its effects on adjacent abdominal organs. All patients with suspected infection of the testicle or epididymis should undergo **culture of the urine & the diseased tissue**, along with performing blood tests for *Brucella canis*, which is an important & potentially infectious disease of dogs & humans. Patients with any testicular or epididymal disease should have the **tissues submitted for histological analysis** to determine the underlying disease process & to direct future therapy.

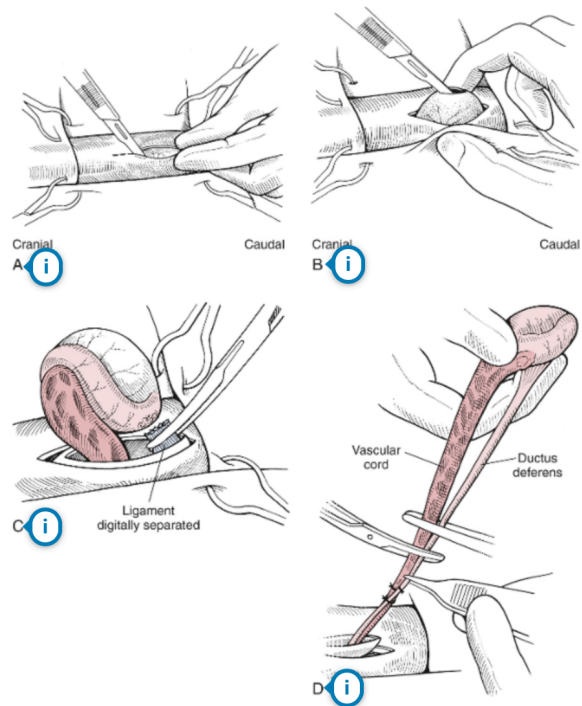
Young, healthy patients presenting for routine elective castration need only a **preliminary screening of blood work**.

TREATMENT

There are two classical methods for surgical castration. They consist of either an open or closed technique. The decision for either technique is based on the veterinarian's or veterinary surgeon's preference. Scrotal ablation (scrotum removal) may be discussed by the attending surgeon at the time of consultation. Reasons for scrotal ablation would include the presence of a large, pendulous scrotum at the time of castration or for the treatment of the primary disease (trauma, urethral calculi removal/relief of obstruction, & neoplasia). Treatment of perineal hernia, prostatic disease or perianal adenoma may require concurrent surgical procedures based on the attending surgeon's recommendations.



FELINE (above) // CANINE (below)



AFTERCARE & OUTCOME

Aftercare for the patient will consist of controlled leash walks for 2 weeks. Cold compresses & oral analgesics (pain Rx, such as non-steroidal anti-inflammatory (NSAID) drugs may be recommended, depending on the clinical picture. Surgical sutures are removed in 10–14 days after surgery. Some patients may be irritated by the surgical wound, thus necessitating the use of an Elizabethan collar to prevent self-trauma.

The surgical site will be injected with NOCITA: 3 day long lasting local block during surgery that will have reduce pain for ~3 days.

Your pet may have an adhesive band aid called PRIMAPORE with antibiotic ointment & some skin glue on the edges to allow for the band aid to adhere to the skin for about 5-7 days. If dirty or soil (wet or urine), the band aid should be removed sooner rather than later. This Primapore is breathable & will help reduce skin infection & self-trauma.

The prognosis is excellent for a routine, elective castration. The prognosis for other disease processes depends on the underlying cause. Determining the appropriate time to perform castration on your pet should be discussed with your veterinarian.

If you have any questions, please feel free to ask your primary veterinarian &/or veterinary surgeon.

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