

## Cryptorchidism in Dogs

### What is cryptorchidism?

*Cryptorchidism* is the medical term that refers to the failure of one or both testes (testicles) to descend into the scrotum.

### If the testicles aren't in the scrotum, where are they?

In most cases of cryptorchidism, testicle is retained in the *inguinal canal* or in the *abdomen*. In some cases, the testicle may be located in the subcutaneous tissues in the groin region, between the inguinal canal and the scrotum. In cases of abdominal cryptorchidism, the testicle cannot be felt from the outside. Abdominal ultrasound or radiographs may be performed to determine the exact location of the retained testicle.

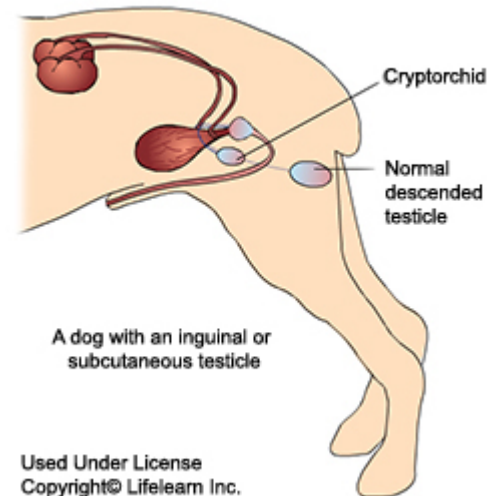
### What causes cryptorchidism?

"The testes develop near the kidneys within the abdomen and normally descend into the scrotum..."

The testes develop near the kidneys within the abdomen and normally descend into the scrotum by two months of age. In certain dogs, it may occur later, but rarely after six months of age. Cryptorchidism may be presumed to be present if the testicles aren't palpated in the scrotum after two to four months of age. Cryptorchidism occurs in all breeds, but the toy breeds, including toy poodles, Pomeranians and Yorkshire terriers, are at higher risk. Approximately seventy-five percent of the cases of cryptorchidism involve only one retained testicle while the remaining twenty-five percent involve failure of both testicles to descend into the scrotum. The right testicle is more than twice as likely to be retained as the left testicle. Cryptorchidism affects approximately 1.2% of all dogs. The condition appears to be inherited since it is commonly seen in families of dogs, although the exact mechanism is not fully understood.

### What are the clinical signs of cryptorchidism?

This condition is rarely associated with pain or other clinical signs, until or unless a complication develops. In its early stages, a single retained testicle is significantly smaller than the other, normal testicle. If both testicles are retained, the dog will be less fertile. One complication of cryptorchidism is



spermatic cord torsion (twisting onto itself). If this occurs, there will be signs consistent with sudden and severe abdominal pain. More frequently, a cryptorchid or retained testicle will become cancerous. The clinical signs associated with testicular cancer depend upon the specific type of cancer.

## What is the treatment for cryptorchidism?

Neutering and removal of the retained testicle is recommended as soon as possible. The procedure normally involves making a second surgical incision over or near the retained testicle. If the retained testicle is intra-abdominal, the second incision will usually be made along the midline of the abdomen. In effect, your dog will undergo two surgical procedures for neutering instead of one.

## What if I don't want to neuter my dog?

There are two good reasons for neutering a dog with cryptorchidism. The first is to remove the genetic defect from the breed line. Cryptorchid dogs should never be bred. Second, dogs with a retained testicle are more likely to develop a testicular tumor (cancer) in the retained testicle.

**"The risk of developing testicular neoplasia is estimated to be at least ten times greater in dogs with cryptorchidism than in normal dogs."**

The risk of developing testicular neoplasia is estimated to be at least ten times greater in dogs with cryptorchidism than in normal dogs. In fact, 53% of all Sertoli cell tumors and 36% of all seminomas occur in retained testicles. Additionally, 36% of all spermatic cord torsions occur in dogs with cryptorchidism. A recent study concluded that a retained testicle, even if replaced in the scrotum surgically, had 13 times higher risk of developing cancer.

## What is the prognosis for a dog with cryptorchidism?

The prognosis is excellent for dogs that undergo surgery early, before pathology develops in the retained testicle. The surgery is relatively routine, and the outcomes are overwhelmingly positive. On the other hand, the prognosis for dogs that develop testicular neoplasia is guarded to poor, depending on the specific type of tumor and the dog's overall health at the time of diagnosis.

*This client information sheet is based on material written by: Ernest Ward, DVM*

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