

## **Cryptorchidism (Retained Testicle)**

Cryptorchidism refers to the failure of one or both testes to descend into the scrotum. It is a fairly common developmental problem affecting horses. It can occur in any breed but has been reported to be most common in the Percheron, American Saddlebred, and the Quarter horse. Although it is possible to have both testes retained, it is more common to have one testicle retained.

During fetal development, the testes are near the kidneys in the abdominal cavity. At the end of gestation in a normal fetus, the testes descend from the abdominal cavity, through the inguinal canals and into the scrotum. Abnormal descent can result in retention of the testicle in the abdominal cavity or in the inguinal canal. There is an equal chance of having the right or left testicle retained. However, if the right testicle is retained there is a higher probability that the testicle is retained within the inguinal canal, whereas the left testicle is more commonly retained in the abdominal cavity.

The cause of cryptorchidism is unknown but it is thought to have a genetic basis. The genetic factors are thought to influence hormone secretion and/or the improper development of structures that are important for the normal descent of the testes. It is therefore discouraged to use cryptorchid stallions for breeding. If the stallion only has one testicle retained, he is fertile. If both testicles are retained he is sterile and unable to reproduce.

The diagnosis of cryptorchidism is frequently established by the horse's behavior, inspecting the scrotum, and knowing the castration history of the colt. To differentiate between bilateral cryptorchidism (both testes retained) and a gelded horse, hormonal stimulation tests can be performed.

Treatment for cryptorchidism is surgical removal of the retained testicle(s).

There are several approaches for removal of cryptorchid testicles. It can be performed under general anesthesia or standing under sedation. It can be performed by the standard approach of making an incision and retrieving the testicle manually. The other option is by laparoscopy, in which a small incision is made into the abdominal cavity and the testicle is visualized with a small scope and retrieved with small instruments.

Absence of a palpable testis in the scrotal sac by one month of age is presumptive evidence of cryptorchidism. After 12 months, inguinal-retained testes rarely enter the scrotum but there have been reports of the testes descending into the scrotum in horses as old as 2-3 years of age. It is best to monitor the testicles every few weeks to determine if the testicles are descending properly. You can have your veterinarian sedate the colt for a thorough palpation. If both testicles are not palpable, it is best to send the horse to a surgical facility for cryptorchid surgery. Do not have your regular veterinarian remove the descended testicle without removal of the retained testicle. This could give a false indication that the horse is a gelding. It is therefore critical that both testes are removed at the same time.

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