

# Dourine

This disease is not present in Australia at this time.

Dourine is a serious, often chronic, venereal disease of horses in Asia, Africa, South America, and south eastern Europe. This infection can result in neurologic signs and emaciation, and the mortality rates are high. No vaccine is available, and treatment with drugs may result in unapparent carriers.

Dourine mainly affects horses, donkeys, and mules. Horses and donkeys appear to be the only natural reservoir for *T. equiperdum*, the parasite responsible for the disease. Male donkeys can be asymptomatic carriers. Dourine was once widespread, but has been eradicated from a number of countries. Currently, the disease is endemic in most of Asia, northern and southern Africa, South America, and south eastern Europe.

Dourine is transmitted almost exclusively during breeding. Transmission from stallions to mares is more common, but mares can also transmit the disease to stallions. Periodically, the parasites disappear from the genital tract and the animal becomes non infectious for weeks to months. Non infectious periods are more common late in the disease.

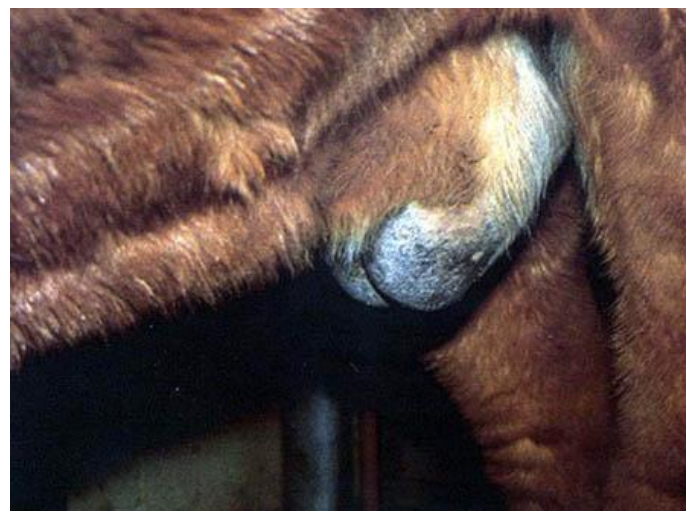
Rarely, infected mares pass the infection to their foals, either before birth or through the milk. These infected foals can spread the organism when they mature. Other means of transmission may also be possible. The incubation period is a few weeks to several years.

Dourine is characterized mainly by swelling of the genitalia, cutaneous plaques, and nervous signs. The symptoms vary with the virulence of the strain, the nutritional status of the horse, and stress factors. The clinical signs wax and wane, and may be precipitated by stress. Stages of exacerbation, tolerance, and relapse can occur several times before the animal either recovers or dies. In mares, the first symptom is usually a mucopurulent vaginal discharge. The vulva becomes oedematous; this swelling may extend along to the abdomen and mammary gland.

Vulvitis, vaginitis and signs of discomfort may be seen. The genital region, perineum, and udder may lose pigment from the skin. Abortion can occur with more virulent strains.

In stallions, the first symptoms are oedema of the prepuce and glans penis. The swelling may spread to the scrotum, perineum, ventral abdomen and thorax. Ulcers may be seen on the genitalia; when they heal, these ulcers can leave permanent white scars (leukodermic patches). Oedematous patches called "silver dollar plaques" (up to 5-8 cm diameter and 1 cm thick) may appear on the skin, particularly over the ribs. These cutaneous plaques usually last for 3-7 days and are pathognomonic for the disease. They do not occur with all strains. Nervous signs can develop soon after the genital edema or weeks to months later. Restlessness and weight shifting from one leg to another is often followed by progressive weakness, uncoordinated movement and eventually paralysis. Other clinical signs may include anemia, conjunctivitis, keratitis, intermittent fever, and emaciation. Dourine also results in a progressive loss of condition, predisposing animals to other diseases.

Estimates of the mortality rate range from 50% to nearly 100%. Apparent recoveries have been questioned by some, in view of the long course of the disease and the waxing and waning symptoms.



Swollen sheath of horse with Dourine