

BASIC INFORMATION

Description

The calcaneal tendon is also known as the *Achilles tendon*. It is formed by the termination of several muscles and attaches to the calcaneus (heel). The calcaneal tendon is critical for normal walking.

Causes

The cause of calcaneal tendon rupture is usually a traumatic event, such as a fall from a height or laceration of the tendon. Chronic degeneration of the tendon may occur in sporting dogs. Parasitic diseases and other conditions can rarely result in calcaneal tendon rupture.

Clinical Signs

Rupture of the tendon causes the hock (ankle) to drop toward or almost touch the ground. The hock may be swollen. Swelling may also occur above the hock, with a thin, flat space visible between the hock and the swelling. When trauma is the cause, usually only one side is involved. In the more chronic form of tendon degeneration, both rear legs may be affected.

Diagnostic Tests

The diagnosis can often be made on the basis of physical examination. X-rays may reveal a fracture of the calcaneus bone where the tendon attaches. Ultrasound examination may be recommended to show where the rupture occurred.

TREATMENT AND FOLLOW-UP

Treatment Options

If the injury is recent, reattachment of the tendon to the calcaneus bone or suturing of the torn ends of the calcaneal tendon is

the preferred treatment. Following repair of the tendon, the hock must be prevented from moving by application of a cast (see the handout on **Fracture Repair: Casts and Splints**) or an external skeletal fixator device (see the handout on **Fracture Repair: External Skeletal Fixation**). Usually, the hock is immobilized (kept rigidly bent) for 6-8 weeks or longer, because tendons have a poor blood supply and heal very slowly.

If the injury is chronic and less likely to be successfully repaired, then fusion of the hock (see the handout on **Arthrodesis**) is an acceptable alternative treatment.

Follow-up Care

If the tendon is surgically repaired, the cast or external skeletal fixator requires special care for as long as it is in place. (See the appropriate handouts for details.)

Prognosis

If the injury is recent and properly repaired, prognosis is good for return to normal activity but may be somewhat guarded (uncertain) for return to full athletic function. As the tendon injury becomes more chronic, the chance of successful repair is less likely. Although arthrodesis results in a fused, rigid hock and loss of normal motion of the hock, it is often a better solution than attempting to repair a chronically damaged tendon.