

CRUCIATE LIGAMENT RUPTURE

I know that knee injuries are common in people. Do they occur in dogs?

The knee joint of the dog is one of the weakest in the body. Just as football players and skiers frequently suffer knee injuries, the dog also has knee injuries.

Why is the knee so likely to be injured?

The knee joint is relatively unstable because there is no interlocking of bones in the joint. Instead, the two main bones, the femur and tibia, are joined with several ligaments. When severe twisting of the joint occurs, the most common injury is a rupture of the anterior cruciate ligament (also called the cranial cruciate ligament). When it is torn, instability occurs that allows the bones to move in an abnormal fashion in relation to each other. It is not possible to bear weight on the leg without it collapsing.

How is it diagnosed?

The most reliable means of diagnosing this injury is to move the femur and tibia in a certain way to demonstrate the instability. This movement is called a "drawer sign." It can sometimes be demonstrated with the dog awake, but if the dog is in pain, has very strong leg muscles, or is uncooperative, it may be necessary to use sedation in order to examine the joint thoroughly.

How is it treated?

Correction of this problem requires surgery. There are three types of surgical repair currently available. Extracapsular repair, also called lateral suture repair, involves the use of a loop of large suture material that is placed outside of the joint to mimic the action of the ligament. This suture temporarily stabilizes the joint and allows the body to produce permanent scar tissue. Tibial Plateau Leveling Osteotomy (TPLO) and Tibial Tuberosity Advancement (TTA) surgeries involve changing the shape of the knee joint by cutting and moving part of the tibia, the large lower bone in the knee. These surgeries change the way the weight is distributed in the knee to prevent instability.

I have heard of torn cartilage. Does this also occur?

Occasionally the injury that causes a ruptured anterior cruciate ligament will also result in tearing of one or both of the menisci or "cartilages." At the time of surgery, these are examined and removed if necessary.

What happens if surgery is not performed?

Occasionally, the dog that has a ruptured cruciate ligament will become sound (will no longer limp) even if surgery is not performed. However, arthritis will usually begin and result in lameness a few months later. That lameness cannot be corrected.

My dog is overweight. Does that relate to this injury?

A special note is appropriate concerning the dog's weight. Obesity or excessive weight can be a strong contributing factor in cruciate rupture. The ligament may become weakened due to carrying too much weight; this causes it to tear easily. Obesity will make the recovery time much longer, and it will make the other knee very susceptible to cruciate rupture. If your dog has a weight problem, there are prescription diets that can be used to assist weight reduction.