Knee Injuries in Dogs

Drs. Foster & Smith Educational Staff

A torn (ruptured) anterior cruciate ligament (ACL) in the knee is one of the most common canine injuries. This mishap is more likely to occur in large breed or overweight dogs, or when a dog has a knee injury, such as twisting it sharply.

The canine knee consists of the femur (the long bone from the knee to the hip), the tibia (the bone between the knee and the ankle), and the patella (the kneecap). Two ligaments – the anterior cruciate ligament (ACL) and the posterior cruciate ligament – crisscross and join the femur to the tibia, stabilizing the knee as it bends.

Excessive stress on the ligaments that stabilize the knee is what causes the ACL to tear.

This stress can be created when a dog makes a sudden turn, twisting the knee. Recent veterinary literature also suggests that in some breeds of dogs the angle of the tibial plateau (the tibia's top) is too steep, causing forward pressure that predisposes these breeds to ACL rupture, even under normal activity.

A dog with an ACL injury may suddenly go lame and hold the affected limb off the ground.

The knee may swell. To determine if the ACL is ruptured, a veterinarian can perform a physical exam to check for abnormal forward motion of the tibia, which is called a drawer sign. If however, the muscles are very tense, the drawer sign may become evident only if the animal is anesthetized.

If the ACL has a partial tear, the veterinarian may prescribe a minimal, low-impact exercise program and medication to reduce inflammation.

However, the instability of the knee makes it highly likely that arthritis will quickly occur. Also, a partial tear may progress to a complete tear. Surgery is generally required if the ligament is completely ruptured, especially in the case of a large dog. In one type of surgery, the torn ACL is replaced with heavy-gauge, surgical suture material. In a newer type of surgery, called a Tibial Plateau Leveling Osteotomy (TPLO), the head of the tibia is cut and rotated so that the plateau's angle is almost

*Unauthorized use of any images, thumbnails, illustrations, descriptions, article content, or registered trademarks of **Foster & Smith, Inc.** is strictly prohibited under copyright law. Site content, including photography, descriptions, pricing, promotions, and availability are subject to change without notice. These restrictions are necessary in order to protect not only our copyrighted intellectual property, but also the health of pets, since articles or images that are altered or edited after download could result in misinformation that may harm companion animals, aquatic life, or native species.*

flat, eliminating the need for an ACL. A titanium plate and screws are used to anchor the two parts of the tibia together.

The recovery period for both surgeries is long, with exercise restriction often lasting 6-8 weeks, starting with at least 2 weeks of cage rest and only short walks on a leash. Walking times are gradually increased. The extended recovery period can be especially difficult for owners of puppies and young dogs that want to resume their romping before healing is complete. Veterinary instructions must be followed strictly.

*Unauthorized use of any images, thumbnails, illustrations, descriptions, article content, or registered trademarks of **Foster & Smith, Inc.** is strictly prohibited under copyright law. Site content, including photography, descriptions, pricing, promotions, and availability are subject to change without notice. These restrictions are necessary in order to protect not only our copyrighted intellectual property, but also the health of pets, since articles or images that are altered or edited after download could result in misinformation that may harm companion animals, aquatic life, or native species.*