

STRAINS, SPRAINS & LAMENESS

Soft Tissue Injuries

Many pets are presented for evaluation of a mild lameness or limp which usually shows up after rough play, or activity on ice, snow, mud, or other slippery surfaces. Most of these cases involve damage to the soft tissues structures of the lame leg including muscle, tendon, ligament, & joint capsule injuries. Types of injuries include partial tears, strains (stretching but not tearing of fibers), and full ruptures of tendons and ligaments. In most instances, pets will usually walk and bear some weight on the leg, but will have a noticeable limp. Occasionally, animals will bear a little weight when moving, but hold the injured leg up when standing still or sitting. Other times a pet may weight bear only when stationary, but refuse to bear weight when ambulatory (moving). Strains and sprains are generally not considered emergencies, however some pets will initially be non-weight bearing on the affected leg thus mimicking a fracture. It is always best to have a severe lameness evaluated by a veterinarian, but you may wish to give the pet with a mild lameness 24 – 48 hours to see if the lameness resolves. Often with strict rest and short leash walks, a minor lameness will resolve in a few days.

One of the most common soft tissue injuries seen in dogs results from damage to the **cranial cruciate ligament** in the stifle or knee joint- similar to the injury seen in human athletes (basketball, skiing, football etc.). Meniscal damages are common as well. Cruciate ligament ruptures result in an acute non (or limited) weight bearing hind end lameness which many owners can mistake for a fracture. If there is any doubt in the owners mind, the dog should be evaluated as soon as possible to eliminate the possibility of a fracture. Obese cats can also have cruciate tears.

Symptoms

- History of trauma or rough play
- Limping or non-weight bearing on a leg
- Holding up a hind end (cruciate knee injury)
- Swollen painful area on leg
- Crepitus in area (bone grinding on bone)
- Joint laxity
- Trembling swollen muscles

Diagnosis

The veterinarian will perform a thorough examination of the dog, including the bones and joints if the dog will permit. When a dog is mildly lame, the dog should be observed walking to evaluate the location and severity of the lameness (limp). Careful limb and muscle palpation is used to identify thickened, warm, loose, or painful areas. All joints should be flexed and extended and checked for laxity indicating strain and joint effusion or swelling within the joint capsule. In many cases, the doctor will take radiographs of the suspected area to rule out the possibility of small fractures or joint luxations (dislocation). Occasionally, ultrasound can be used to image the soft tissue

structures and look for tears within the body of the tendons and ligaments.

Therapy

Physical therapy- In most cases, minor strains and sprains resolve on their own with a matter of time, and strict exercise restriction. Sprains should be treated similar to how you would treat a twisted ankle on yourself. Ice compresses can be used for the first 24 hours followed by warm compresses on the affected area after 24 hours.

Medical therapy- If the dog has been evaluated by the veterinarian and the lameness has been determined not to be serious, your veterinarian may prescribe antiinflammatory medication such as Rimadyl® or Etogesic®, both of which are safe aspirin-like drugs for dogs. Never give Tylenol®, Advil®, or any other human medication to dogs, for even at low doses, these drugs can be toxic to dogs and cause death.

Surgical therapy- In the case of **cranial cruciate ligament ruptures**, or severe ligament or tendon tears, surgery may be required to repair the damage and reattach structures. Patients are often in bandages and splints for a period of time after surgery and their exercise restricted for several months. Many of these patients benefit from physical therapy which owners can be taught to do at home.

Prognosis

Generally good to excellent depending on severity of the injury. Cruciate ruptures almost always require surgery for the most favorable long term outcome. Joints that suffer repeated trauma are likely to develop arthritis as the dog ages.

Prevention

The number one risk factor associated with sprains and strains is being **overweight or obese**. Obesity in the canine and feline population is growing problem should be corrected as soon as possible. There are a number of high quality balanced dog foods formulated specifically to promote weight loss available on the market.