

Winter Lameness

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For clients with active dogs, the change of season from summer to winter only means a change in the type of activity, not a change in its quantity. Winter means recreational activities such as snowshoeing, cross-country skiing, bounding after family members on toboggans and sleds or simply changing the daily walk from sidewalks and grass to icy roads and snow. Veterinarians are also called upon to examine competitive sled or skijoring dogs, winter search-and-rescue (SAR) dogs, or avalanche dogs. Constant activity on uneven or slippery surfaces of snow and ice, as

well as contact with the sand and salt often used to treat roadways, can lead to lameness diagnostic challenges not typically found in other seasons. There is a joke in the sled dog world that if a leg falls off of a dog, he will look at it for a moment and just decide to pick it up on the way back. A highly driven dog's desire to continue active cannot be used as a measuring stick of pain or injury. Veterinarians must understand how the mind of a high-drive dog combined with a high-drive owner with competition or management pressures can contribute to injury and affect rehabilitation success. High-drive individuals will continue working through minor to moderate discomfort or dysfunction, often as if nothing has happened. When both athletic canines and caretakers ignore early warning signs, more serious injuries occur.

Thorough diagnosis is imperative While managing pain and inflammation is a critical part of lameness treatment, a thorough diagnosis of the injured tissue can allow for the development of a specific recovery treatment plan. Alleviating pain and inflammation is not the same as returning to full biomechanical function. integrative veterinarians, especially those trained in manipulative, rehabilitative or massage techniques, are in a unique position to greatly influence the outcome of these types of injury and guide injured patients back to full soundness (or as close as the dog's age and previous structural status allow). A good diagnosis is just as imperative for the seemingly minor injury as it is for any other disease process. Sources of mild to severe unsoundness in dogs working or playing on snow or ice can include: Exacerbation of existing osteoarthritis Tendonitis (especially of the biceps brachii, foot flexors, Achilles) Collateral ligament desmitis (especially of the carpus, medial elbow, digits, medial stifle Carpalis Muscle strains (biceps, hamstrings, lumbar epaxials, iliopsoas) Cervical whiplash (from a front leg punching through hard snow surfaces) interdigital or pad dermatitis from snowballs, sand or salt abrasions interdigital or pad lacerations from snow balls, sub-snow foreign objects such as tree branches, or interactions with ski tips or snowshoes worn by a human companion Dewclaw inflammation from booties worn by working or racing dogs Frostbite

Common Winter Injuries

If it is a muscle, tendon or ligament, it can be injured or torn – in are palpated in a quadriceps muscle, don't think it can't happen because there hasn't been a published paper on it. your hands and the dog's reaction will tell you more than anything else. Don't talk yourself out of what you find. anybody region. normal movement on dry surfaces tends to favor injuries of certain body regions but slipping on or punching through snow or ice can injure just about anything. Keep an open mind when performing a physical exam if swelling and pain

Foot problems are probably one of the most common and easily overlooked causes of winter lameness. Snow buildup on the interdigital hairs can be prevented by spraying cooking oil or applying musher's wax to paws and pads. irritation from sand or salt can be avoided by rinsing feet upon returning home. irritation from excessive exercise on abrasive snow or ice can be prevented with the use of booties, although caution must be exercised with fitting the bootie around the dewclaw. non-infected pad cuts, cracking or worn areas can be treated by attaching moleskin with superglue to the affected area and the use of musher's wax or calendula cream.

Frostbite in the average canine winter weekend warrior is somewhat rare, though it's common in the sled dog. Any dog that spends a great deal of time out in the cold should be carefully checked. Commonly affected areas are usually non-weight-bearing ones such as the prepuce, scrotum, vulva and ear tips. The interdigital areas of the feet also need examining; an Australian shepherd avalanche dog had an old, healed ski tip injury on the metatarsus. That foot was more prone to cold compromise. The author's preferred homeopathic remedies for frostbite include Agaricus, nitric acidum or rhus toxicodendron.

Muscle strains can happen any time a dog runs, plays or works on slippery surfaces of variable hardness. A weekend warrior pug or elderly but enthusiastic cattle dog playing on a berm of freshly shoveled snow will have the same stresses to soft tissue as an avalanche dog searching on the toe of a slide. in dogs without core strength, slipping on ice and snow can lead to moderate strains of propulsion and support muscles such as the quads, hamstrings, biceps (both brachialis and femoris), gracilis and triceps. older dogs with arthritis, osteoarthritis of limb joints, or changes in spinal architecture will be particularly susceptible to muscle injury due to an inability to respond to sudden balance loss. An appropriate diagnosis can be done with gait analysis, digital palpation, joint range of motion and stress testing radiographs will be unremarkable with soft tissue injuries. Thermal imaging is an excellent tool for localizing the inflammatory or painful area; then the type of injury can be verified with ultrasonography.

Ligament and tendon injuries are common in the active winter canine athlete. Dogs can strain medial and lateral collateral ligaments of any joint with the sudden, twisting and shearing that can happen with slips and falls. The repetitive stress of walking or running on uneven snow or constantly tripping on the heels of cross-country skis or snowshoes can cause injuries to the collateral ligaments and flexor tendons of digits and carpi. A single hind foot punching through crusty snow can injure an Achilles tendon. Again, older animals with previously existing joint or spinal compromises will be more susceptible to injury. It is critical that the veterinarian examining an animal with known pre-existing conditions be able to separate the old from the new and treat the fresh injury while supporting the existing weakness. A common clinical fallacy is to assume every rear leg lameness is a cranial cruciate ligament injury – remember there are many structures in the hind leg that can be injured.

Walking or running on ice or leaping on uneven snow piles can also lead to one-time or repetitive stress to joints, especially those of the lower limbs. Carpalitis, tarsitis and phalangitis are common causes of vague and minor lameness in the winter. A healthy, normal canine carpus should flex to the point where the pads can touch the caudal (posterior) ulna. Sensitivity on flexion or loss of range of motion are indications to evaluate for joint effusion. Keeping toenails short is critical for preventing digital and lower limb sprains. In dogs with previous injuries and repetitive weaknesses, use of flyball carpal supports can be very effective in avoiding carpal sprains. Often, repetitive carpal and digital sprains (as well as biceps brachii strains) can come from compensatory overuse of the front limb in response to stiffness, weakness or mild soreness of the caudal spine, sacroiliac or hips joints.

Treatment Options

The basic human sports medicine treatments of rest, ice and compression may be all that is needed to successfully help the active lame canine, if they're used swiftly. Cold laser, homeopathic remedies, topical liniments (if they can't be licked off), acupuncture and oral herbal formulas can also speed up recovery times. Early in injury, soft tissue therapies such as massage, Shiatsu and Tui na can be very beneficial. Other manipulative therapies need to be approached with caution in a very fresh injury as aggressive therapy can dislodge fresh clots, thereby increasing hemorrhage and edema. The general rule of thumb with chiropractic and osteopathic therapies is to be cautious as long as there is less than full weight-bearing on a limb, since structural "straightening" can often relieve compensations and put weight back on a limb that is not quite ready. A veterinarian does not have to be a sports medicine or rehabilitation specialist in order to properly handle a limping dog that may come into his or her clinic over the next few months. Making sure a thorough exam and good diagnosis is made, whether at a first visit or through a referral, is critical to a successful resolution of winter lameness, both in the short term and long term.