Canine Rebalance

MUSCULOSKELETAL REHABILITATION THERAPIES

The Agility Dog

Causes for Soft Tissue Issue and Injury

Agility training and competition carries a level of risk for the dog. Some dogs travel at high speeds, using significant acceleration, deceleration, twists and turns to negotiate agility courses and also sustain impacts on landing on or after an obstacle.

As a result, some dogs suffer Soft Tissue Injuries. These involve injuries to the Muscles, Tendons, Ligaments and Fascia, and are presented in the Soft Tissues as Strains, Sprains and Trigger Points.

With competitions becoming more frequent throughout the entire year and with competition increasing, training can also increase therefore adding to the repetitive stress and pressure on the dog's musculoskeletal system.

Consider the stresses and pressure put on the dog's musculoskeletal system as it traverses agility equipment.

For example: All agility competitors strive for fast and accurate weaves from their dog. The style of weave action the dog uses, the speed at which the dog travels through the weaves and the length of their back, will all determine the levels of stress and pressure put on their muscles. To perform this piece of equipment, muscles are often required to reach past their normal range of motion and an 'S' shape can be created in longer backed dogs as they span three weave poles at a time. In some styles of weaving the limbs of the dog can be pushing off in one direction, whilst the centre of the dog's body arcs in the opposite.

The A frame requires the dog to ascend and descend the frame at speed. Transitioning from the ground to the up slope requires the muscles of the neck, shoulder, elbow and forelimb to take the full impact.

Some dogs are trained to come to a complete stop at the bottom of the A frame with their two back paws on the contact area of the down slope and both front paws on the ground. To do this the dog must brake hard with their forelimbs, shoulder muscles, chest, neck and lower back muscles.

In addition to considerable pressure on the dog's body with this piece of equipment, some dogs may position themselves in the two on two off position with a sway back, putting stress on the vertebrae.

For a dog to jump, the muscles of the hind limbs must first provide the power and propulsion, whilst the muscles of the forelimb, shoulder and elbow provide the height of the lift and on

landing absorb most of the impact along with the soft tissues of the Carpus. The majority of muscles within the dog's body are used at some point during this action, even if only to create stability during this movement. Dogs that take off too early or too late, fail to decelerate before turning, or accelerate inappropriately for the jump spacing have a greater risk of injury.

In addition, the ground can often be wet, slippery or too hard for the dog to safely navigate an agility course, compromising their usual capability.

The risk of injury to the dog is also influenced by the inexperience of dog or handler, age, breed, size of a dog and the jump height they are expected to jump.

Dogs can be kept in small areas (like a crate) for a long period of time at competitions and this can have a detrimental effect on their muscles.

Holding the body in one position for long periods can increase the likelihood of Trigger Points (tight and sore knots in the muscles), increase delayed onset muscle soreness, reduce circulation which in turn reduces oxygen and nutrient flow, and prevent the body from expelling toxins and metabolic waste.

Finally, dogs that have already sustained an injury and have not had sufficient rest and appropriate rehabilitation to resolve the issue, have an increased risk of further injury whilst training or competing.

"A preliminary retrospective survey of injuries occurring in dogs participating in canine agility -

Of the 1627 dogs included in the study, 33% were injured, and of those 58% were injured in competition. Most injuries occurred on dry outdoor surfaces. Border Collies were the most commonly injured, and injuries were in excess of what would be expected from their exposure. For all dogs, soft tissue injuries were most common. The shoulders and backs of dogs were most commonly injured. Dogs were most commonly injured by contact with an obstacle. The A-frame, dogwalk and bar jump obstacles were responsible for nearly two-thirds of injuries that resulted from contact with the obstacle."

(http://www.ncbi.nlm.nih.gov/pubmed/19597633)

Symptoms

Some of the symptoms that may be seen in a dog during or after training or competition, which may indicate that they have a Soft Tissue injury or issue are:

- Slowing down over contacts, in particular when reaching the contact area
- Difficulties with weave entries and staying in the weaves
- Changes in posture when jumping (lack of extension in hind limbs)
- Measuring before jumping
- Stutter Stepping
- Tucking hind limbs up over jumps
- Knocking down poles
- Lacking balance on contact equipment
- Lack of focus and drive
- Slowing down around courses
- Lame or limping after performance
- Unable to complete certain obstacles
- Stiffness after exercise/limping
- Twitching in the skin
- Not weight bearing correctly on all four limbs

The benefits of Musculoskeletal Therapy

- Increases circulation, which will increase oxygen and nutrient rich blood to the soft tissues (muscles) of your dogs' body
- Increases the flexibility and elasticity of your dog's muscles, which in turn will help to prepare their bodies for the impact and repetitive strain of agility training and competition
- Addresses soft tissue imbalances from the offset, which enables you to help your dog before a small issue becomes a big problem!
- Eases tension, adhesions and constrictions from the muscles helps to prevent injury, ensuring that your dog continues to perform at their optimum capability
- Increases their range of motion, which in turn will create better movement
- Removes painful and sore trigger points
- Helps to break down and remodel scar tissue (a connective tissue) that your dogs body lays down as a result of a tear to their muscle, known as the Strain. Remodelling scar tissue will increase the flexibility and elasticity in your dog's muscles, which will in turn increase their agility performance