

Canine Rear Limb Injuries

Soft Tissue Physiotherapy Treatments

The rear limb anatomy of the dog is very similar to the structure of the human legs. Like us, they too can suffer from strains of the adductor, calf, gluteal, hamstring and quadriceps muscle groups. Playing the critical part in moving the dog forward, it is not surprising why hindlimb strains are such an issue in athletic dogs.

These hindlimb muscle groups are responsible for the following joint functions:

- Extension of the hip, hock and stifle
- Flexion of the hip and stifle
- Abduction of the pelvis
- Adduction of the hip

Where physiotherapy has been recommended by your veterinary it will play an integral part in the treating, rehabilitation and long term

management of these important locomotor structures. Treatments can be either as conservative management or to provide post-operative care.

Complementary to physiotherapy treatments, land-based treadmills provide particularly effective rehabilitation and muscle tone improvement for the hindlimbs.

Every dog is different, so the actual treatment plan will be tailored to your dog and its particular condition.



Benefits of Physiotherapy Treatments:

- Control pain, inflammation and swelling in acute injuries and post-operation
- Improve range-of-movement, therefore refining athletic performance
- Restoration of rear-end weight distribution and hip alignment
- Rehabilitation programs to reduce the potential for re-injury

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Treatment Options

Injured Area	Treatment Outline
Adductors	The adductor group of muscles includes the adductors, gracilis and sartorius. Symptoms of injury include loss of performance, a mild lameness and throwing out of the affected limb. Therapeutic ultrasound*, massage and stretching exercises are recommended for conservative treatment of this large muscle group. Pulsed Magnetic Field Therapy (PEMF) can also be used to reduce inflammation and help restore muscle normality.
Calf	The calf muscles consist of the gastrocnemius (larger) muscle at the back of the lower leg and the smaller soleus muscle (lower down). They join to the heel bone via the achilles tendon. Mild strains may be conservatively treated with similar modalities to adductor muscle injuries. If surgery is required, for example due to laceration, then post-operative care including therapeutic ultrasound is proposed to aid rehabilitation. NMES can also be used as a complementary home treatment to relieve pain following any surgical procedure.
Gluteal & Tensor Facia Latae	Playing an important function in hip joint extension and flexion, areas of tension and soreness in these muscles can be effectively treated with LASER, stretching and massage treatments. In dogs with gluteal muscle atrophy, NMES can be used to help restore muscle tone. As a complementary treatment, PEMF can also be used to reduce muscle tension.
Hamstrings	These are the main hip extensors which generate much of the dogs forward thrust. They are also an important muscle group which executes the jumping action. The hamstring group responds particularly well to a targeted treatment programme of therapeutic ultrasound*, massage and stretching. The latter aid rehabilitation and prevention of future injuries. NMES can also be used as a complementary home treatment to aid recovery.
Quadriceps	Aside from minor muscle strains which can be treated similar to hamstring injuries, contracture of the quadriceps muscle has been identified as a particular issue. For this, surgery is indicated, and physiotherapy can help with post-operative pain management , joint mobilisation and prevention of muscle atrophy. As well as manual manipulation, NMES, PEMF and therapeutic ultrasound will be used in treatments.

Treadmill Walking

An additional 5 sessions are proposed, building from 5 to 30 minute periods. This includes using incline and decline settings to target particular muscle groups.

Hiring Units

NMES and PEMF are suitable for home use and it is possible to hire these machine. For more details and pricing please visit <http://goo.gl/JuiMdZ>.

*Note: Symptoms may worsen slightly after initial treatments due to the initiation of the healing process and is perfectly normal. Information given is for reference purposes and is not indicative of any particular treatment or outcome. Before any advice, treatment or consultation is entered into, you must agree to our terms and conditions of practice. Hiring an electrotherapy unit will require a refundable deposit. *In breeds with dense coats, MKW LASER comb may be substituted for ultrasound.*