

GAIT4Dog® Dynamic Gait Analysis

At Hawksmoor Hydrotherapy Centre

GAIT4dog offers an advanced method of accurately assessing the dog's weight distribution in both the walking and trotting gaits.

Why is this important?

Evaluating the canine gait is highly beneficial to understanding many musculoskeletal and neurologic conditions.



The **GAIT4dog** system, located at Hawksmoor Hydrotherapy (Nuneaton, Warwickshire) is based on the **Fit Fur Life** Professional dog treadmill. It incorporates thousands of tiny sensors under the treadmill belt, which give an unparalleled amount of data which is recorded as a **GLS score**. The system is suitable for most dogs and can be used for dogs from 5 kilos to over 100.

The objective data delivered by the **GAIT4dog** system offers a significantly better assessment than traditional 'walking' based visual gait analysis. It is not affected by factors such as pulling on the lead / weaving and simple interpretation by the human eye. It also offers more comprehensive data collection than static mat or force plate base systems.

Would your dog benefit from a gait analysis for understand of subtle lameness issues, evaluation pre and post-operation or to provide the basis for physiotherapy based strengthening work?

Advantages of GAIT4Dog Analysis:

- Proven technology
- Reveals limb off or overloading
- Objective reporting with reproducible data
- Can be used both for pre-and post-rehabilitation evaluations
- Suitable for monitoring both performance dogs and post-surgery cases

GAIT4Dog®

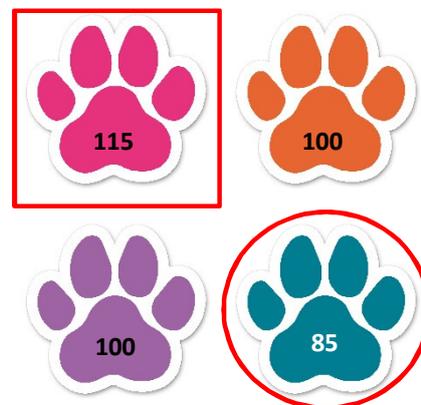
Dynamic Gait Analysis Treadmill

Technical Data

The GAIT4Dog treadmill uses the GAITRite® software to produce the **GLS score**. This score is designed to show a grade for 'off' loading and 'over' loading of a limb. A perfect score is 100. Numbers below 100 can indicate a level of off-loading of a limb i.e. lameness. Numbers above 100 indicate over loading of a limb (compensation).

The data is derived from factors such as stance time / distance and limb pressure / reach. Additionally, visual assessment (while on the treadmill) demonstrates the dog's gait at the time of testing.

Research into this system suggests *"the GAITRite system has strong concurrent validity and test / retest reliability"*.



The evaluation returns a GLS score. Below 100 can indicate off-loading, above 100 over loading.*

Selection of Case Studies

Dog A was diagnosed by their veterinary with a strain of iliopsoas muscle. By using the GAIT4Dog system we could take data before and after conservative physiotherapy treatment. The improved GLS score (following physiotherapy) proved the efficacy of the treatment and guided the subsequent strengthening and maintenance programs.

Dog B was referred for treatment to the thoracic spine area. The GLS score showed that the dog was shifting weight to its right-hand side on both fore and rear limbs. Following physiotherapy to the spine, coupled with relieving muscle tension on the right limbs a second GAIT4Dog evaluation was made. The dog returned a near perfect 100 score, confirming that the treatment had been a success.

Dog C was evaluated to test a suspected rear left limb soft tissue injury. The GAIT4Dog confirmed this (<75 GLS score), but also showed a corresponding low score on the front left and high overload to the front right. These indicated compensatory factors. As well as undergoing successful physiotherapy for the rear limb, corresponding working was carried out on the front limbs as well.

Need a gait analysis on the GAIT4Dog system?

Please contact Alan at alan@smartpawsphysiotherapy.com. We are based at the Hawksmoor Hydrotherapy centre near Nuneaton in Warwickshire.