



WHAT IS GAIT ANALYSIS?

Gait analysis is the systematic study of animal locomotion. It is used to assess and treat patients with conditions affecting their ability to walk and run.

Walk, trot and pace are all examples of symmetrical gait. Movement is balanced throughout the body in dogs with normal locomotion. All joints should blend and work in harmony, however, if one joint or movement is out of sequence it can become evident as a change in gait that can affect one or even all of the other joints.

- **Kinetics** = the amount of **force** that the dog puts through each limb
- **Kinematics** = the **angles** at which the dog flexes and extends each joint (including the neck, head and tail)

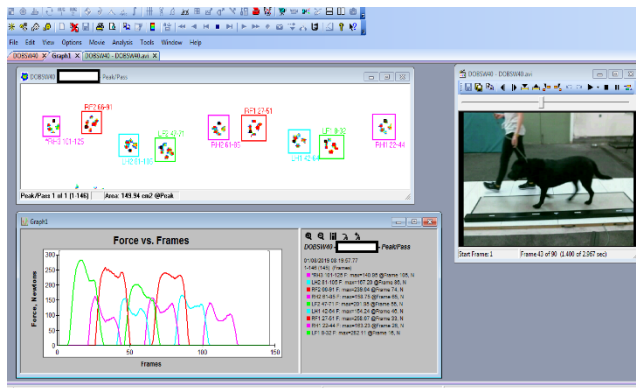
HOW DO WE DO THIS?

At the Queens Veterinary School Hospital, we are lucky to have at our disposal several types of technology to help us capture and analyse the gait of your pet. We now routinely use marker-less gait capture, utilising video-based motion capture in conjunction with a pressure mat.

Using this equipment we collect objective data to identify alterations in joint function, allowing us to differentiate healthy joints from diseased joints or joints that are recovering from treatment.

Objective gait analysis can overcome some of the inconsistencies of standard (visual) lameness scoring. It can also speed up diagnosis, due to fewer variables and the ability to get data quickly. Clinical cases can benefit from multiple visits and comparisons of pre-and post-treatment results as these help us chart your pet's recovery.

Check out our video showing how we perform gait analysis on your pet: [Gait analysis video](#)



HOW CAN I FIND OUT MORE?

This clinical assessment may be offered as part of your pet's orthopaedic / neuro examination if the clinician feels it would be beneficial. If you are a referring vet or member of the public that thinks this would be helpful to your pet please call the Queens Veterinary School Hospital on **01223 337621** to discuss this. You can also e-mail the QVSH at hospital@vet.cam.ac.uk. If you are interested in the research behind what we do, or in having your dog participate in one of our clinical research projects, please contact Nicola St-Onge, QVSH Clinical Research Coordinator, at clinical-research@vet.cam.ac.uk.