

# Quantitative Gait Analysis in Horses

Recommended instructor to student ratio: 1:1

## Category

1. Observation Involving minor interference

## Objective

Objective measurement of gait parameters (Head, Pelvis and RF limb movement) for clinical and research purposes

## Alternatives to animal use

Subjective visual assessment of lameness

## Equipment

Equinosis lameness system™

## Safety and Risk considerations

With horse held by a confident horse handler the sensors are attached to the horse. The pelvis sensor is attached by standing next to the horse facing the tail.

## Drugs, chemicals or biological agents

No drugs required

## Procedure

The Head sensor incorporated in a specially designed hood is affixed to the horse's head collar (Figure 1).  
The RF limb sensor is strapped around the right fore pastern using a specially designed leg wrap (Figure 2).  
The pelvis sensor is affixed to a "clip-cradle" which grabs a strip of tape placed on either side of the Tubera sacrales (Figure 3).

The horse is then trotted in hand in a straight line and then on the lunge for a minimum of 30 strides while a hand-held tablet records data from the linked sensors.

## Impact on wellbeing of animals

None

## Animal Care

No special requirement needed

## Pain Relief

No pain relief needed

## Reuse and repeated use

Trials are repeated once to increase validity.

## Qualification, experience or training necessary to perform procedure

Veterinarian or trained veterinary nurse.

## References and relevant links

<https://equinosis.com/>



**Figure 1:** Head sensor in place



**Figure 2:** RF pastern sensor in place



**Figure 3:** Pelvic sensor in place