



Owner's Guide to BLOOD TESTING for CUSHING'S DISEASE and METABOLIC DISEASE

Your horse has been proposed for testing for Cushing's disease (Also called PPID) and/or Metabolic Disease (Also called Insulin Resistance or Type 2 Diabetes). Amongst many other symptoms, both these diseases make the horse more susceptible to develop laminitis. Treating these disorders should reduce your horse's risk of developing laminitis.

The vet will mark below which test is proposed for your horse, and which protocol you will need to follow. Please allow at least 3 working days before making a call to the practice to find out the results from the vet in charge of the case.

PPID (Pituitary Pars Intermedia Disease)/Cushing's Disease

This disease is caused by a damaged nerve. In healthy horses, this nerve slows down the hormone production of the Pituitary gland. In horses with Cushing's disease, the nerve does not slow down the hormone production and many hormones are being over-produced. This results in varying symptoms. ACTH is one such hormone that will increase the horse's production of natural steroid, and ACTH levels can be used to judge the severity of PPID.

ACTH

If ACTH is to be tested for, the blood is taken, and needs to be transported back to the practice in a cool pack within 3-6 hours. If the vet is on a round that does not allow them to bring the sample back to our lab, you might be asked to take the sample back to the practice.

Insulin Resistance/Metabolic Disease/Type 2 Diabetes

In this condition, the horse's body is not responding to Insulin as it should. As a result, an over-production of insulin and sometimes high blood sugar levels are likely. Two tests can be done, the first one is the most sensitive, but more fiddly for the owner. The second one is easier to carry out and less sensitive. These samples do not need to be chilled or taken back to the practice lab urgently. These samples are altered if the horse is stressed, and therefore are ideally not taken after transportation of the horse.

Dynamic Insulin (and glucose)

The horse should be starved for 8 hours. This is best achieved by stabling the horse on a non-edible bed, and feeding a small hay net for tea. The size of the net should be estimated so that it is likely to be finished by midnight.

After starving, the horse should be fed a measured amount of glucose as prepared by our nurses (100g of glucose per 100kg bodyweight). This can be mixed in a small feed of something appetising to the horse. Some horses do not enjoy eating the glucose, and it is important to let your vet know an estimation of how much glucose the horse has eaten.

Glucose, Insulin and Triglycerides

The blood sample needs to be collected after around eight hours of starvation (see above on how to starve your horse) or at least no access to starchy or sugary feed, for eight hours.