

Collection, Processing and Submission Instructions

1. For sample submission, only one (1) purple-top (EDTA) tube is required per horse.
2. Follow the feeding instructions detailed in the Feeding Instructions Prior to Determination of Resting Insulin downloadable PDF.
3. The purple-top (EDTA) tube is for ACTH, insulin and glucose.
4. After obtaining the sample, immediately place sample in a cool place.
5. Within the same calendar day as you obtain the sample, spin sample and remove plasma (portion on top) from the purple-top (EDTA) tube and transfer plasma to either a red-top or purple-top (EDTA) tube.
6. **Caution: Cornell University Animal Health Diagnostic Center (AHDC) will NOT process samples if the purple-top (EDTA) tube is not spun down and plasma separated.**
7. Plasma can now be shipped unfrozen, or frozen if shipment is going to be delayed.
8. Ship plasma with an ice pack.
9. If samples are frozen prior to shipment and shipped with an ice pack, they will arrive at the diagnostic laboratory thawed but still cool.

Feeding Instructions Prior to Determination of Resting Insulin¹

Do NOT fast horse; follow feeding instructions listed below.

The resting insulin procedure is used as an assessment of the postprandial insulin response.

Procedure:

1. Do not feed grain within 4 hours of pulling blood for insulin testing.
2. If horse is stabled, leave horse on hay (do not remove hay) prior to pulling blood for insulin.
3. If horse is kept on pasture, leave horse on pasture prior to pulling blood for insulin.
4. If horse is on pasture and also fed hay, leave it on pasture and hay prior to pulling blood for insulin.

Interpretation of Resting Insulin Results¹

Result	Interpretation	Recommendation
<20 uU/mL	Non-diagnostic or normal	Dynamic test recommended to better assess — Oral sugar test
20-50 uU/mL	Suspect insulin dysregulation	Dynamic test recommended to better assess — Oral sugar test
>50 uU/mL	Insulin dysregulation (ID)	Proceed with ID management

¹ Recommendations for the diagnosis and treatment of equine metabolic syndrome (vEMS). 2018. Equine Endocrinology Group (EEG). Available at https://sites.tufts.edu/equineendogroup/files/2018/09/2018-Final-EMS_Recommendations_Web.pdf