

Equine Insulin Interpretation

For diagnosis of insulin dysregulation (ID) in horses:*

Basal Insulin Concentration:

<45 $\mu\text{U/ml}$ – Oral Sugar Test (OST) recommended due to low sensitivity of basal insulin for detecting Insulin Dysregulation (ID)

$\geq 45 \mu\text{U/ml}$ – Consistent with Insulin Dysregulation

Oral Sugar Test (OST):

Procedure: Fast patient 3-6 hours, then administer corn syrup orally at a dose of either 0.15 or 0.45 ml/kg. Measure blood insulin concentration at 60 and/or 90 minutes later.

0.15 ml/kg corn syrup dose

<45 $\mu\text{U/ml}$ – Normal result, Insulin Dysregulation not confirmed

$\geq 45 \mu\text{U/ml}$ – Consistent with Insulin Dysregulation

0.45 ml/kg corn syrup dose

<65 $\mu\text{U/ml}$ – Normal result, Insulin Dysregulation not confirmed

$\geq 65 \mu\text{U/ml}$ – Consistent with Insulin Dysregulation

*Reference Ranges based on Equine Endocrinology Group (2024) Guidelines available online at: equineendocrinologygroup.org