

# AUBURN ENDOCRINE DIAGNOSTIC SERVICE

**Collection and Testing Information:** (Please Do Not Send Whole Blood. Samples Should be Sent in Plastic Tubes, NOT GLASS)

T4	Submit 1 ml of serum. Ship in plastic vial, no cooling needed.
Post-Pill Thyroid Monitoring	Submit 1 ml of serum collected 4 to 12 hours after a dose of thyroid replacement medication.
Free T4 by Dialysis	Submit 1 ml of serum. Ship in plastic vial, no cooling needed unless samples will be stored for > 3 days before shipping. Free T4 can be assayed using serum samples sent to us originally for T4.
Thyroglobulin Autoantibody (TgAA)	Submit 1 ml of serum. Ship in plastic vial, no cooling needed.
TSH (dogs or cats)	Submit 1 ml of serum. Ship in an insulated container with cool packs.
Multiple Thyroid Testing (any combination of tests)	Submit 1 ml of serum. Ship in an insulated container with cool packs.
Cortisol ( as measured in Adrenal Function Tests listed below). Serum or Plasma, plasma best if samples send in US Mail	<b>1 ml of EDTA-plasma or serum.</b> Centrifuge and draw off plasma within 15 minutes of collection. If EDTA plasma collected, ship sample(s) in plastic tubes using overnight or 2 <sup>nd</sup> mail delivery, no cooling needed. <b>Try to fill EDTA tube to draw capacity.</b> If serum collected, best to ship samples in an insulated container with cool packs. Single resting cortisol determination is NOT recommended for assessment of adrenal function.
Recommended Initial Screening Tests for Cushing's Disease	<b>For Dogs:</b> Low Dose Dexamethasone Suppression <b>or</b> Combination Dexamethasone Suppression: ACTH Response or ACTH Response Test. <b>For Cats:</b> High dose (0.1 mg/kg, IV) Dexamethasone Suppression.
ACTH Response Test	Take a pre-sample using cortisol procedure. <b>For Dogs,</b> either give 5 µg/kg synthetic ACTH (cosyntropin or cortrosyn) IV, collect post-sample 1 hour later OR give ACTH gel 1 IU/lb body weight IM. (Max dose = 40 IU) and collect <b>two</b> post-samples; one at 1 hour and another at 2 hours. <b>For Cats,</b> give 1 IU/lb body weight ACTH gel IM and collect two post ACTH samples, one at 1 hour, other at 2 hours. Or give 0.125 mg synthetic ACTH IV and collect a post-sample 1 hour later.
ACTH Response Test Patient on Trilostane (Vetoryl)	Perform response test (above) 3-8 hours (ideally 4-6 hrs) after a dose of trilostane (Vetoryl)
Dexamethasone Suppression Tests Low or High Dose	Take a pre-sample using cortisol procedure. For <b>low dose</b> test, inject dexamethasone at 0.01 mg/kg IV. For <b>high dose</b> test, inject at 0.1 mg/kg IV. Collect post-samples 4 and 8 hours later. For the low dose test, it is often best to dilute dexamethasone with sterile saline to 0.2 mg/ml or less before injection.
Combination Dexamethasone Suppression: ACTH Response	<b>For Dogs,</b> collect a pre-sample using cortisol procedure. Inject dexamethasone 0.1 mg/kg IV. Take a post sample 4 hours later. Following the post collection, perform ACTH response test (described above). Collect and submit the three (or 4) samples using cortisol procedure.
Dexamethasone Suppression Test: Horses (Cushings diagnosis)	Collect pre-sample for plasma cortisol between 5 and 7 pm, then inject dexamethasone 0.04 mg/kg IV. Collect a single post-sample 18-24 hours later.
Fructosamine	For dogs or cats, submit 1 ml serum. Freeze and ship overnight in an insulated container with cool packs.
Progesterone (Horses only)	Submit 1 ml serum. Ship in insulated container with cool packs
Endogenous ACTH (Dogs or Horses, <b>not Cats</b> )	For dogs, best to collect blood with aprotinin (included in endogenous ACTH submission kit). For horses, aprotinin NOT NECESSARY. For both species, best to collect blood into EDTA. Separate plasma quickly. Store plasma in plastic (not glass) tube. Ship overnight with frozen gel packs.

## Submission of Samples:

- Please label all tubes clearly
- Do not submit whole blood.
- **Do not submit samples in glass tubes,** use plastic vials or tubes and proper packaging to withstand shipping
- Provide history/previous tests/medication if interpretation requested.
- **Use EDTA tubes (purple top) for plasma collection. Try to fill EDTA collection tubes to draw capacity.**
- **Do not** submit plasma or serum in EDTA tubes (purple top).

Assay Schedule	
Hormone or Drug	Day(s) Assayed
T4, TSH, Cortisol. . . . .	Monday, Wednesday, Friday
Free T4. . . . .	Monday - Results on Tuesday Thursday - Results on Friday
TgAA.....	Thursday
Fructosamine, and Progesterone. . . . .	When received *if received before 1 pm
Endogenous ACTH. . . . .	Thursday Results Friday