



## PROTOCOL – ACTH STIMULATION TEST

**In the dog**, this is an ideal screening test for evaluation of hyperadrenocorticism (Cushings) and hypoadrenocorticism (Addisons), and may be useful in (a) Confirmation of spontaneous hyperadrenocorticism; (b) Confirmation of iatrogenic hyperadrenocorticism; (c) Confirmation of spontaneous hypoadrenocorticism; (d) In monitoring therapy for hyperadrenocorticism.

**In cats** hyperadrenocorticism is rare, and urine cortisol:creatinine ratio (assayed on an early morning urine sample collected, collected in the home by the owner) may be used as an alternative screening test.

1. Withhold food for a period of at least 12-hours. Collect a pre-stimulation sample into a clot activator tube labeled with the animal's name and 'Pre-ACTH.'
2. For dogs, inject 0.25mg (250µg) Synacthen I.V. For canine patients weighing less than 5kg, and for cats, use half the dose of Synacthen, i.e. 0.125mg (125µg).
3. For dogs and cats collect a post-sample one hour later. Label with the animal's name and 'One-hour post-ACTH.'
4. For cats collect a third sample 30 minutes after that collected in 3 above (i.e. 90 minutes post administration of Synacthen). Label with the animal's name and '90 minutes-post-ACTH.'
5. Alternatively, or in addition, label the tubes with the time of collection.

### **NOTES:**

1. In Addisons disease, once a diagnosis has been made and therapy initiated, adrenal function will be further suppressed and the ACTH Stimulation test will provide no additional useful information. Such cases are best monitored on the basis of clinical signs and electrolyte levels.
2. In Cushings disease, monitoring of treatment (Trilostane, Vetoryl, etc is of value and there are suggested guidelines for this. Please contact the laboratory if you require further information.
3. Also in Cushings disease, therapy with Trilostane (Vetoryl) has the potential to result in transient or permanent hypoadrenocorticism (Addisons disease), and thus concurrent assay of electrolyte levels is recommended.
4. It is important that urine samples for cortisol:creatinine ratio are collected from non-stressed animals. An early morning sample is recommended.
5. In cats, a concurrent dexamethasone suppression test (alongside the ACTH Stimulation Test) may prove more useful – see separate protocol.