#### What is Cushing's Disease?

Equine Cushing's Disease, also known as Pituitary Pars Intermedia Dysfunction (PPID), is a disorder of the pituitary gland that results in hormonal imbalances, specifically elevated levels of ACTH. The pituitary gland is located at the base of the brain and produces hormones that regulate many different body functions. A degeneration of nerves from the hypothalamus which regulate the activity of the pars intermedia portion of the pituitary gland is believed to be the cause of Equine Cushing's Disease. Without regulation, the pars intermedia enlarges and overproduces ACTH. Increased levels of ACTH cause an overproduction of the hormone cortisol. Horses with Cushing's Disease are at an increased risk for developing laminits.

### Who is affected by Cushing's Disease?

The disease typically occurs in middle aged and geriatric horses, however it has been diagnosed in many horses less than 10.

## What are the clinical signs of Cushing's Disease?

The classic form of Cushing's Disease is associated with development of a long haircoat, increased water consumption and urination, and abnormal distribution of fat which accumulates in the crest of the neck, tail head and sheath. Other symptoms may include excessive sweating, lethargy, poor athletic performance, delayed wound healing, weight loss, muscle wasting. However, the most serious complication associated with Equine Cushing's Disease is the development of acute and chronic laminitis.

# How is Cushing's Disease Diagnosed?

The diagnostic procedure we use to detect Cushing's Disease is the TRH Stimulation Test. The test is performed on the farm by taking a baseline blood sample, injecting the TRH hormone intravenously, and collecting a second sample 10 minutes later. The TRH Stimulation Test has proven beneficial in early diagnosis and in detecting those cases which have intermittently normal levels of resting ACTH. We recommend that horses diagnosed with Cushing's Disease be re-tested every 6 months so that we can adjust their medications if needed.

## How is Cushing's Disease Treated?

Treatment of Cushing's Disease is a lifelong commitment. Cushing's Disease is treated daily with an oral medication called Prascend (pergolide). The dose of Prascend may be gradually increased or an additional medication called cyproheptadine may be added if testing demonstrates inadequate improvement.

Many affected horses also develop insulin resistance and therefore diet changes should be made. Feeds containing high carbohydrates, sugars and molasses should be avoided. A diet high in fiber and fat is desirable. Soaking hay for 30 minutes prior to feeding will also help eliminate sugars.

If you have any questions regarding your horse and Cushing's Disease, please do not hesitate to contact us at any time.