# Cushing's Disease

Horses are living longer than ever before, with the rise in longevity has also come an increase in the reported cases of Cushing's disease. Equine Cushing's disease is caused by a tumor in the pituitary gland, which is responsible for the production and regulation of hormones. While the tumor itself is benign, the cells within the tumor produce excess hormones, creating an imbalance in the horse's body. The cause of the tumor itself is not known.

In other words, equine Cushing's Disease is due to the development of a benign tumor of the pituitary gland. The growth of this tumor subsequently disturbs the delicate balance which exists between the pituitary gland, the hypothalamus, and the adrenal cortex. It is the disruption of this mechanism that leads to the "presenting symptoms" we all associate with Cushing's disease.

Cushing's disease is most common in horses over 20 years old, although the youngest documented case was found in a seven year old. It is equally prevalent in both genders and is found more often in Morgan's than in any other breed. Ponies may also have a slightly higher predisposition.

#### SYMPTOMS

The most notable symptom of Cushing's disease is the growth of a long, shaggy, coat of hair. This irregularly long and sometimes wavy hair often persists throughout summer months and is a critical signal that a horse may have Cushing's disease. Other symptoms include excessive drinking and urination, laminitis, a tendency for recurring hoof infections (foot abscesses), and a loss of muscle mass, especially along the topline and rump. They can also include depression, lack of energy, fatty deposits and weight loss.

# HORMONAL/ENDOCRINE FACTORS

The hypothalamus gland is located in the brain stem and controls mechanisms in the body such as temperature regulation, blood sugar levels, thirst, hunger, hormones and defense mechanisms such as the



"fight or flight" response. The hypothalamus interacts closely with the pituitary gland that secretes Adrenocorticotropic hormone (ACTH). The release of this hormone into the blood stream then stimulates the adrenal cortex to secrete Cortisol. Cortisol meanwhile increases blood sugar by stimulating the liver to break down stored protein.

The increased levels of hormones in the blood stream are responsible for the diabetes-like conditions such as excessive thirst coupled with excessive urination and sometimes weight loss. It can also cause visual dysfunction, and directly contributes to laminitis. Cushing's horses are prone to repeated skin and organ infections, this is thought to be due to the excessive release of Cortisol which depresses the immune response and the increased levels of blood sugar that create an ideal environment for bacterial growth.

# DIET

Cushing's horses should receive little or no alfalfa. Their diet should be rich in Orchard grass, Bermuda, and Timothy hays; they also need extra amounts of vitamin E, vitamin C, and MSM along with CUSH-**ING-ZYME**. They should be fed a diet which is as close to natural as possible, including a little rice bran, soaked whole oats (not rolled, steam or crimped), **MISSING LINK**, Horses and COLOSTRUM. with Cushing's should have limited or no sugars or carbohydrates (not even a carrot or two and very limited, or no oat hay), although from our experience they can have apples with no adverse affect. There are concentrated feeds out there that are low in both sugar and carbohydrates, but you will have to read the labels on the bags. Cushing-Zyme should be fed daily at recommended dosages, or as your vet may recommend or prescribe.

### TREATMENT

Allopathic, chemical treatments are available from your vet, but are in some cases quite costly, and they do come with side affects. Dr. Wessner, www.holisticvetclinic.net has homeopathic remedies to treat the disease at affordable prices, and Earth Song Ranch designed Cushing-Zyme to be a natural, affordable, supplement to support the Cushing's horse on many levels including liver, pancreas, kidney, and also hormonally. Cushing-Zyme contains Vitex (Chaste Berry), Parsley, Milk Thistle and other supportive herbs; it also contains extra Colostrum to boost the immune system and is blended with **PRO-ZYME** to assist in optimizing the absorption of the herbs and supplements for the best results.

#### DISCLAIMER

The information provided within this site is for informational purposes only and is not intended as a substitute for advice from a veterinarian or other health care professional, and should not be used for diagnosis or treatment of any health problem or for prescription of any medication or other treatment. A health care professional should be consulted before starting any diet or supplementation program, before administering any medication, or if your horse has a health problem. Do not discontinue any other medical treatments without first consulting your health care professional.

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