

DODSON & HORRELL

ANIMAL HEALTH, NUTRITION AND WELL-BEING

FEEDING SUCCESS

CUSHINGS All you need to know

What is cushings?

Equine Cushings, defined as Pituitary Pars Intermedia Dysfunction (PPID), is one of the most common endocrine abnormalities of horses and one of the most common diseases in horses older than 15 years of age.

PPID involves abnormal function of the pituitary gland. As the disease progresses clinical signs may include:

- Changes in coat, shedding and length
- Excessive drinking, polydipsia, or urination, polyuria
- Muscle wastage (loss of topline and glute muscles)
- Abnormal fat deposits, particularly fat pads around the eyes
- Lethargy
- Increase infections, especially sinus and dental
- Laminitis
- Equine Metabolic Syndrome

What causes Pituitary Pars Intermedia Dysfunction (Cushings)?

• The pituitary gland plays a vital role in regulating hormones within the body. In horses with PPID the control mechanisms of the pituitary gland are altered leading to excess production of Adrenocorticotropic Hormone (ACTH). ACTH increases the production and release of cortisol from the adrenal glands. This leads to an increase in circulating blood glucose levels, which in turn will affect insulin production and can lead to insulin resistance. Insulin resistance is a major risk factor for laminitis. Your vet may prescribe Pergolide (*Prascend*⁹ *Boehringer Ingelheim*) to reduce the over-production of cortisol and to reduce the clinical signs of PPID.

Call us now for expert nutritional advice: 01270 782223

FEEDING & MANAGING CASES OF EQUINE CUSHINGS DISEASE

PPID cannot be cured however with correct veterinary care, specialist dietary support and careful management, horses and ponies with this disease can lead a relatively healthy and active life for a number of years.

Avoid feeds that are high in starch or sugar:

• Those with PPID struggle to maintain normal blood concentrations of glucose and insulin. Feeding high levels of sugar and starch can lead to a rapid increase in blood glucose, and hence insulin levels. This can increase the risk of insulin resistance leading to laminitis, therefore, monitoring fat stores and energy, are essential. For those that struggle to hold their weight, a diet plan high in fibre and oil is ideal. For those with PPID who maintain their weight well, a vitamin and mineral supplement or balancer paired with a low-calorie chaff would be suitable.

Feed small meals:

• Horses and ponies with PPID will benefit from multiple small meals throughout the day as this will help to avoid peaks and troughs in blood glucose and insulin levels. We recommend feeding no more than 1g of starch per 1kg of body weight per meal.

Weigh & fat score regularly:

• Some horses and ponies with PPID maintain weight well, whilst others are prone to weight loss. It is important to ensure that your horse or pony stays at a healthy weight for their breed and height. We recommend fat scoring and weighing them using our scientifically validated weigh tape every fortnight. Ideally, you should aim for a fat score of 2.5-3 on a scale of 0-5.

Feed a balanced diet:

• High cortisol levels can lower efficacy of the immune system, making them more susceptible to problems such as worm infestation, recurring tooth or hoof abscesses or infections such as conjunctivitis or sinusitis. Feeding a fully balanced diet containing vitamins, minerals and antioxidants such as vitamin E and selenium can support immune function.

Get your forage tested:

• Pasture, particularly in the Spring, can contain high levels of non-structural carbohydrates (NSCs) including sugars, starches and fructans. In some cases, you may need to remove your horse from pasture and feed hay instead. We offer a hay analysis service which can indicate whether your hay is suitable. We would also recommend soaking your hay for a minimum of 30 minutes, as this has been shown to reduce the NSC content.

Provide good quality protein:

• As horses with PPID are prone to muscle wastage (due to high cortisol) they require more dietary protein than horses without PPID. Essential amino acids are very important for muscle growth and remodelling and ensuring you have the right source and amount is essential.

Oils:

• Feeding oils is a great way to supply a dense source of calories. Some oils are more easily absorbed and the balance of omega 3 and 6 is important. A correct balance can help with coat, joints, inflammation and boost the body condition.

Herbal support:

Cinnamon has been shown, in humans, to help control glucose and insulin levels in the blood and so is recommended for humans with type 2 diabetes. Although the effect of feeding cinnamon to horses has not yet been studied it could be beneficial. It also provides palatability when included in a feed. Similarly, some studies show that Chaste Tree Berries could support hormonal function in horses and ponies with PPID.

Salt & electrolytes:

• Horses and ponies with long, curly coats will often sweat more than normal. Combined with increased urination, this means that horses with PPID will have higher requirements for electrolytes, as they secrete potassium, calcium, sodium, magnesium and chloride through sweat and urine, regardless of whether they are deficient in it or not. In some cases, a specific electrolyte supplement might be needed to maintain the electrolyte balance within the body.

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