

EQUINE CUSHINGS DISEASE (ECD)

What is it?

Equine Cushings Disease (ECD), also known as Pituitary Pars Intermedia Dysfunction, is a common condition affecting older horses and ponies. It is related to problems in the functioning of the pituitary gland, which is found just beneath the brain. This gland plays a vital part in the production and regulation of hormones.

In a healthy horse, a particular hormone named ACTH is released into the blood from the pituitary gland and in turn stimulates the adrenal glands near to the kidneys in order to produce another hormone named cortisol. This has a wide range of functions around the body including:

- Maintaining blood pressure and heart function
- Modulating the immune system's response to infection and inflammation
- Regulating normal nerve tissue function and connective tissue repair
- Balancing the effects of insulin and regulating the breakdown (metabolism) of carbohydrates, proteins and fats
- Helping the body respond to stress.

Once the body detects that there is enough cortisol in the blood, specific nerves tell the pituitary gland to switch off. Research suggests that these nerves can deteriorate with age, so the pituitary gland continues to run at full speed - leading to overproduction of cortisol.

Humans and dogs can also suffer from a form of Cushings Disease. However, it is not exactly the same as it is in horses, which is why this form is specifically known as Equine Cushings Disease.



*Horses **and** ponies can be affected by ECD. Rai Lady was diagnosed with ECD in 2010.*

Equine Cushings Disease

What are the signs?

The signs of ECD are the result of excess cortisol. They include one or more of the following:

- A thick, often curly coat, even in Summer (in the majority of cases, but not in all cases)
- Weight loss or muscle wastage
- Abnormal fat distribution, such as a pot belly or fatty pads around the eyes
- Susceptibility to laminitis
- Excessive drinking and urination
- Sweating, caused by the thick coat or the hormonal imbalance
- Recurring infections because of a less effective immune system, such as sinusitis, dermatitis, or conjunctivitis
- A sleepy demeanour.

The early stages of ECD are subtle. It could be as simple as a delay in shedding of the Winter coat. Early stages could also include mild weight loss, or a single episode of laminitis. Weight loss and laminitis need prompt investigation and treatment, so consult a vet straight away.

Vets can diagnose ECD through several routes. They can measure the levels of ACTH in the blood by running a blood test, or can challenge the body with steroids to test the functionality of the pituitary gland's 'switching off' mechanism. In some cases, the horse's appearance alone is enough for a vet to make a confident diagnosis without the need for tests.

Treatment and Management

ECD is a progressive disease that sadly cannot be cured. However, its symptoms can



30-year-old Beauty has had her coat clipped to help her feel more comfortable.



Ben enjoyed a good quality of life for six years after being diagnosed with ECD.

be successfully controlled through treatment and careful management, meaning ECD sufferers can enjoy a good quality of life for many years after diagnosis.

There are several medications available to help manage hormone production, but only one is licensed and available through veterinary prescription. It contains pergolide, which tries to restore the balance of hormones in the body by mimicking the nerves that control the pituitary gland. The medication is in tablet form and is usually given once a day. This long-term treatment can be costly – but if the horse responds well, it is possible to reduce the daily dose over time. A vet will give specific advice on which medication is suitable based on the horse's individual needs.

Prevention of ECD symptoms should be factored in to the horse's routine management. Clipping the long, thick coat – especially the underbelly and upper limbs – will ensure the horse feels cooler and

more comfortable. Regular baths will be appreciated as they help with skin care (and eliminate odour from excess sweating!)

Preventative health care is particularly important because of the horse's poor immune system. Worming, farriery, dentistry and all vaccinations should be kept up-to-date. Even normally minor problems such as nasal discharge should be investigated as a matter of urgency. Be vigilant for any signs of upper respiratory tract disease and dermatitis – and bathe the eyes with warm water regularly to help prevent conjunctivitis.

Regularly monitor the horse's weight using a weigh tape. Although results from a weigh tape may not be completely accurate, weekly use will still help to gauge any relative weight loss or gain. Your vet can advise you on the right diet for your horse and if any supplements are needed.

There is a delicate balance between maintaining the weight of horses with ECD and preventing episodes of laminitis. If the horse is prone to laminitis, make simple changes such as reducing or eliminating short feeds and replacing them with forage (preferably hay). However, if your horse has poor teeth and cannot cope with forage, consider chopped fibre feed or soaked high fibre cubes as the main part of its diet.

Restrict access to rich grass by strip grazing or reducing turn-out time. Your vet may advise a supplement containing B vitamins and Vitamin C if grazing is particularly restricted, as these are helpful in supporting the immune system.

Equine Cushings Disease

Always contact your vet at the first sign of laminitis. Treatment in its early phase means pain is resolved quickly and there will be less risk of long term changes within the hoof.



An increase in drinking and urination is caused by the body's need to flush out the excess cortisol.

Availability of fresh and clean water is vital, as horses with ECD may drink over 80 litres a day. Also ensure that stabling has enough bedding to soak up the resulting amounts of urine! Soiled bedding must be removed every day to prevent breathing problems or hoof

problems. A salt lick or supplementary electrolytes may help horses that sweat excessively, as sweat contains many essential salts.

Donkeys and Equine Cushings Disease

Donkeys can suffer from ECD as well as horses and ponies. They will display similar symptoms, but it can be more difficult to spot them. For example, donkeys have a permanently thick and hairy coat all year round! Knowing your donkey well and careful monitoring should be a natural part of their management and owners need to take note of even small unexplained differences in their physique or behaviour. Seeking veterinary advice sooner rather than later will help with the early diagnosis and treatment of conditions such as ECD.

Call the Redwings Welfare Line for more information about Equine Cushings Disease on 01508 481008 or email welfare@redwings.co.uk

IN AN EMERGENCY SITUATION PLEASE CALL YOUR VET

Redwings Welfare Team

Redwings Horse Sanctuary, Hapton, Norwich NR15 1SP

Tel: 01508 481008 (9am - 5pm, Monday to Friday)

Email: info@redwings.co.uk

Redwings Horse Sanctuary

General Enquiries 01508 481000

www.redwings.co.uk

