



# Headshaking Syndrome

Headshaking sounds such an innocuous term but it can make the affected horse's life a misery and render them un-rideable.

Horses may shake their heads for a variety of reasons: for example due to pain in the mouth or back. In some, it may be a response to stress or in anticipation of food or exercise. All of these are voluntary actions; the horse is choosing to toss his head. Headshaking syndrome is different, it is an involuntary action thought to be caused by pain in a nerve supplying the face.

## Cause

The condition is thought to be similar to trigeminal neuralgia in people. The site of the pain (muzzle and nose) is not the source of the pain which is within a branch of the trigeminal nerve, deeper in the horse's head.

The trigeminal nerve is a sensory nerve receiving information from the head and sending messages to the brain. In headshaking syndrome this nerve is hypersensitive and fires at inappropriately low inputs. Nerve pain is described by people as itching, tingling, electric shock-like sensations, which could explain the sudden violent reflex actions exhibited by headshaking horses.

Keeping a diary can help identify trigger factors such as sunlight, rain, wind, pollen, flies or less commonly eating or sound. Sunlight is a key trigger in some horses and most of the others are also more likely to be present in the spring and summer which may contribute to the seasonal nature of the condition in some cases.

Some researchers have suggested a link to equine herpes virus (EHV) however a study investigating this found no evidence to support this theory.



**PHOTOPHOBIA (SQUINTING IN SUNLIGHT)**

## Clinical signs

Typical headshaking behaviours include:

- repetitive involuntary sudden violent vertical downward flick of the nose;
- rubbing nose and muzzle on foreleg;
- usually worse during exercise;
- sneezing, snorting;
- runny eyes, runny nose;
- seasonal; one third are affected during spring and summer only;
- more common in geldings;
- photophobia (squinting in bright sunlight or seeking shade), in some cases.

There is a huge spectrum in the severity of signs shown, from the occasional twitch to horses who are obviously very distressed and can become dangerous to ride or will rub the sides of their faces so hard they will mutilate themselves.

## KEY POINTS

- Headshaking is an involuntary action
- Horses display a vertical flick of the head and nasal irritation.
- Signs are usually worse during exercise and may be seasonal.
- The condition is thought to be due pain from the nerve supplying the face.
- Nose nets provide relief in some horses.
- There is currently no reliable cure but the condition can be successfully managed in some cases.

## Diagnosis

Your vet will take a careful history including how long you have owned the horse, when signs started and if there are any triggers.

A full clinical examination including examination of the ears, eyes and mouth will be completed to rule out other possible causes. If it is safe to do so, the vet may want to see the horse ridden or exercised. Further tests which can help rule out other causes include endoscopic examination of the nasal cavity and x-rays of the head and sinuses.

The characteristics of the condition means that the vet may make the diagnosis from their examination alone however sometimes local anaesthetic may be injected behind the eye to abolish sensation from the trigeminal nerve. If the headshaking signs improve in response to this nerve block, it adds weight to the diagnosis.



**DENTAL EXAMINATION AND TREATMENT WILL OFTEN FORM PART OF THE INVESTIGATION OF HEAD SHAKING SYNDROME**



**ENDOSCOPY OF THE NASAL CAVITY CAN HELP RULE OUT OTHER CAUSES**

## Treatment/Prevention:

- minimise known trigger factors; if light is a trigger avoid riding in bright sunlight or use a UV blocking face mask;
- use of a nose net improves symptoms in 75% of sufferers, this may act by reducing the contact of irritants with the nose, by warming and slowing the air entering the nasal cavity and/or dampening down the nerve response by the contact of the material with skin.

Other treatments that may help in some cases include:

- magnesium supplements;
- melatonin;
- human drugs such as cyproheptadine, tegretol and gabapentin;
- acupuncture;
- surgery to insert a coil around the nerve;
- electrical nerve stimulation;
- pulsed steroid therapy.

Some horses with the condition deteriorate and may have to be euthanased on humane grounds or because they become difficult to handle.



**THE USE OF NOSE NET IMPROVE SIGNS IN A SIGNIFICANT PROPORTION OF SUFFERERS**



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