

# Travelling Stress

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Over recent years there has been an increasing number of reports of a severe respiratory disease with symptoms of pleuropneumonia, or infection within the chest cavity, developing within 24 hours to 7 days after long distance travel. Initially, cases were associated with air travel, particularly in breeding and equestrian horses being transported by air from the Northern Hemisphere. Reports indicate that despite improved transport conditions, up to 6% of horses on long haul aircraft develop travel sickness. The horses at highest risk were those in the rear section of the aircraft where the concentration of inhaled viruses and dust laden with bacteria was increased by the airflow from front to rear of the aircraft. The risk was reduced when the number of air changes per minute was increased, without causing excessive draft.

**Affected horses develop severe respiratory symptoms, with build-up of fluid and infection in the chest cavity. Despite massive antibiotic treatment, chest drainage and other intensive therapy, most died or were severely affected. Many developed secondary conditions, such as acute diarrhoea or founder, due to the toxic infection.**

The number of cases of severe respiratory disease associated with travelling horses in trucks and trailers has also increased over the past 10 years. Racing and equestrian horses which are transported home within a couple of hours of competition without an opportunity to drain their airways, especially where a large amount of airborne contamination is taken into the lungs when competing, have the highest risk in trips over 12 hours in duration.

Many cases have been reported of yearlings being travelled interstate in company with mares, and because the trip is delayed by pick-ups and drop-offs on the route, travelling time can be extended to over 24 hours. Many of these horses become infected with viruses and a risk of inhaling dust and aerosol droplets laden with bacteria in the enclosed, often poorly ventilated transport vehicles.

The incidence is highest in enclosed floats or trucks and also in horses travelling at the rear bays of the transport. The risk can be reduced when just one air change per minute is provided by opening roof vents, without causing excessive draft. Studies have shown that horses facing forward to the front of a large truck are subjected to a greater level of travel associated stress, as compared to and those travelling sideways or even facing towards the back in the rear section.

## Dusty Feed

Dusty, dry hay offered during transport can significantly increase air contamination as horses pull at it during transport. Horses with underlying respiratory infection, such as the 'stable virus', often have low grade lung damage which can reduce airway immunity. They develop severe bacterial infection when dust or bacterial germs are inhaled deep into the lungs during hard exercise. These are trapped in the lower airways and increase the levels of harmful anaerobic bacteria by up to 40 times.

Where a number of horses are travelling in an enclosed transport, horses carrying the 'stable virus' may infect other horses during a long trip as they spread aerosol droplets, containing the virus, to saturate the air in the confined, poorly ventilated humid transport conditions. The highest risk occurs in horses travelling at the rear of a transport due to inhalation of heavily contaminated air. Other stress factors include **cramped spaces, erratic and high speed driving, swaying trailers, and lack of adequate rest stops and tying a horse's head too high so as to reduce lung airway drainage.**

Studies by the late Professor Daria Love and Prof Jennifer Hodgson at the University of Sydney found that when travelling, there is an accumulation of fluid in the lower airways as a result of the head and neck being held above chest height for long periods. Horses have to be able to put their head down, usually when grazing or eating, below chest height to increase the efficiency of lower airway drainage. Natural drainage of lung secretions is reduced, increasing the risk of lung and chest cavity infection with bacteria, especially if the lung tissue becomes infected with Equine Herpes Virus (stable virus) under conditions of poor ventilation. Viral infection removes the normal cleaning action of the cilia (hair-like brush lining) of the airways, increasing the risk of fluid, mucus and other debris build-up in the lower airways. The risk of lung and chest complications is increased if horses are unable to put their heads down to drain respiratory cleansing secretions during and after long distance transport. **It takes about 4 hours to accumulate a significant amount of fluid to saturate the lower lobes of the lungs and only 15 minutes to drain it out with the head down below chest height once the horse is taken off the transport.**

## Early signs

For a few days after a long trip, particularly in a horse with a history of recent respiratory infection, observe the animal for signs of **depression, sweating due to fever** (take its temperature morning and evening), **panting in shallow, rapid breaths, and symptoms of chest cavity pain - resisting movement, standing with elbows out and front legs wide apart, looking around at its chest, coughing, pawing the ground in discomfort as well as loss of appetite and associated weight loss and dehydration.**

## What to do

**Take the horse's temperature** - if it is above 38.4°C, seek veterinary advice immediately. Travel sickness associated with pleuropneumonia is a serious, usually fatal condition. It is an emergency condition, do not wait to see if the horse gets better - call your vet immediately.

## Management to Prevent Travel Sickness and Stress

Obviously, in all disease conditions, especially those as serious as pleuropneumonia, management to avoid the disease is essential.

Many horse owners supplement with immune active nutrients, such as in **Kohnke's Own Activ-8™**, for 7-10 days prior to long distance travel to help maintain an active immune response to any inhaled infective organism or dust, and for 7 days after the trip. They ensure that the horse is fed low down on the ground with dampened hay to facilitate airway drainage before the trip and for at least a week after the long distance travel.

**Do not travel any horse over a long distance when it is showing symptoms of the stable virus**, with coughing, nasal discharge or even early stages, such as depression, reduced appetite or an elevated temperature.

- **Administer an oral electrolyte**, such as Rehydrate, at 50mL morning and evening for 2 days prior to long distance travel over 6-8 hours in horses which are to perform - eg; eventers, polocrosse, endurance horses, with access to an adequate supply of cool, clean water to maintain blood fluids and hydration.
- **Ensure the horse is cooled out and has an opportunity to put its head down to eat for 30-40 minutes** after hard exercise, especially under dusty arena or paddock conditions, before leaving for a long return trip to your home stables. This is especially important in racehorses running on dusty tracks, polo and polocrosse horses playing on dusty fields, eventers and competitive stock horses. This will help the drainage mechanisms to clear some of the inhaled particles from the lower airways before the horse is travelled.
- **The trailer or transport must be well ventilated**, with adequate flow of air, but avoiding excessive cold air inhalation and especially during overnight travel. Most well designed trailer floats have roof air vents and air intake 'scoops' in the front and sides to improve air flow out through the rear during travelling.
- **Carefully tie the horse's head so that it can comfortably put its head down below chest height** to nibble on dampened hay in a hay bag or net during the trip. The hay or any feed provided must be dampened with water, or 50mL of vegetable oil e.g. **Kohnke's Own Energy Gold™** mixed into the feed to reduce mould and fine dust which can be inhaled deep into the airways and risk infection and airway reaction.
- **Make sure that the trailer coupling and tow bar are level**, and drive smoothly and at comfortable speeds to reduce anxiety and stress on the horse(s). **Ensure that the back flap or rear upper doors are closed when travelling on dusty roads to avoid the vacuum effect created behind the trailer that will swirl dust into the inside area.**
- **Stop for a rest every 4-6 hours.** There is a tendency to keep travelling, especially at night. However, a horse has a higher risk due to hard exercise under dusty conditions, it is important to stop and unload the horse for a 15-20 minute break to allow it to walk around to restore hoof circulation (so as to reduce risk of laminitis or founder in susceptible horses) and put its head down to graze and assist airway drainage. It takes 15-20 minutes to drain excess airway fluids after travelling. **The stop, revive, survive slogan to help reduce driver fatigue also helps minimise stress in travelling horses. A day off in the paddock to graze grass, drain the lower airways and relax is a good idea.**
- **Reduce the discomfort from gastric acid reflux** or 'heartburn' in horses during transport. Recent studies indicate that 'stress' and anxiety in many horses causes an increased flow of gastric acid that could result in acid 'burn' and reddening of the stomach lining around the gullet inlet (oesophageal inlet), causing a reflux 'burn' and discomfort. Typical signs include 'fidgety', 'girthy' 'restless' or 'nervy' behaviour, lack of concentration and non-cooperative behaviour, with loss of appetite, after 1-2 hours of travelling. A small feed of 4 litres of slightly dampened lucerne chaff, 3 scoopsful of **Kohnke's Own Gastro-Coat™** and 2 tablespoonsful of Ag-Lime given 30 minutes before travelling, at rest stops with hay and on arrival, will help maintain the appetite and help settle the horse during the trip.

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