



What is shipping fever?

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What is shipping fever and how do horses get it?

Shipping fever is pneumonia associated with transport or travel, caused by either a viral or bacterial respiratory tract infection. Pneumonia usually starts with an influenza or herpes virus infection, which in and of itself doesn't cause a lot of clinical disease – the visible signs of a virus may be just fever, a runny nose and a slightly depressed animal.

A viral infection, however, can predispose the horse to a bacterial infection – especially if the horse is not known to be sick or is transported anyway. Different factors associated with travel – increased dust, reduced airway clearance and stress (which suppresses the immune system) – all create an environment that makes it easier for bacteria to take hold.

The other predisposing factor for shipping fever is *exercise-induced pulmonary hemorrhage*. Any horse competing in high-intensity exercise such as racing can have small hemorrhages in their lungs, resulting in pools of blood. Blood sitting in lungs is the perfect medium for bacteria to grow in. When these horses are then transported over a long distance – to home or to another show – they have a perfect risk factor for developing full-blown pneumonia.

What is a typical timeline for shipping fever to develop?

A typical example might be as follows. Your horse travels to a show, the travel causes stress, there's mingling with a lot of unknown horses, and your horse picks up a virus. After the horse contracts the virus, there is a prepatent period during which the virus multiplies and spreads through the body but no clinical signs are visible. Two or three days later, your horse starts getting depressed and may have a fever.

The fever is an important signal, but it can be easy to miss unless you're taking your horse's temperature daily. It may be another day or so until it gets a runny nose. Some horses will show that they're not feeling well by acting depressed and going off their feed, and some horses will power on though with no obvious signs – just like people.

Problems can occur when the horse is shipped back home or taken to another show the next weekend. The conditions inside the trailer could result in bacterial pneumonia. Within two to five days of first developing a runny nose, the horse may start to show more serious respiratory signs such as coughing and difficulty breathing. These signs will tip off most owners: this is more than just a minor virus that the horse can fight on its own.

Are there other ways for horses to get shipping fever besides trailering?

Yes, but in these instances, it's just referred to as pneumonia. Pneumonia is the general term for any infection of the lung.

What's the difference between a viral or bacterial infection? How is this determined?

Clinically, viral and bacterial infections can look identical. You may have heard that a clear discharge means a viral infection and a thick green or yellow discharge means a bacterial infection, but this is not true in all cases. The best thing to start with is a blood test to tell what type of infection it is. It's important because viral infections cannot be improved by treatment with antibiotics, and the overuse of antibiotics weakens the drugs' ability to be effective when we need them.

If it's a virus, we may also do a nasal swab to determine which virus we're dealing with, especially if herpes virus or its neurological form is suspected. This helps us determine if steps are needed to manage a potential outbreak.

What should horse owners do if they suspect their horse may have been in contact with a virus?

Start with basic biosecurity measures – isolation and monitoring for fever are the owner's first defence against preventing the spread of respiratory disease.

When the horse comes home, it should be kept in a pen away from other horses for five to seven days with its temperature monitored daily. This is to give the prepatent phase of a virus time to develop. New arrivals should also be isolated. Be sure to clean the trailer and other equipment well before using it again. Most respiratory disease is spread through horse-to-horse contact, or through buckets, hoses or human hands. It's not a very hardy disease in the environment and will not travel long distances in the air.

Get in the habit of taking your horse's vital signs while they're healthy so you know its baseline (normal) temperature. Normal temperature in horses is 37 C to 38 C while 38.5 C to 40 C would be considered a fever. Owners should also watch for an elevated respiratory rate: a resting rate of 10 to 16 breaths per minute is normal, depending on the size of the horse.

How is shipping fever treated?

A veterinarian should examine the horse, starting with a proper diagnostic workup to tell if it's a viral or bacterial infection.

With a viral disease, rest and supportive care while the infection runs its course is the most important thing. Depending on the horse's temperament, it may stop eating and drinking. If it stops drinking, it sets itself up for dehydration, impaction colic and other problems – it's much easier to steer them in the right direction if you can get on top of it right away. They may need intravenous (IV) fluid or treatment with an anti-inflammatory drug such as Banamine (flunixin meglumine), under the directive of a veterinarian, to reduce the horse's fever. Bacterial pneumonia would also be treated with antibiotics.

For any respiratory infection, the other thing that's really important is rest – the lungs need time to recover.

Do horses recover from shipping fever?

With a viral respiratory disease, the horse should be given two weeks of rest. It can be started back to work gradually and should reach its prior level of fitness after about two weeks of work.

For pneumonia with an active bacterial component, it really depends on how an individual horse responds to treatment. It's considered resolved when radiographs of the lungs and blood work looks normal. Horses will normally need to rest at least four weeks. Bacterial infections can also have long-term consequences such as lung abscesses or chronic, lingering pneumonia. In severe cases, the horse may never return to its former athletic capacity.

How can horse owners help prevent shipping fever?

If possible, leave the horse free to put its head down in the trailer. The horse's airway continually secretes mucous to protect itself – if its head is tied and that mucous can't be cleared out, it will build up in the airway. If your horse must be tied, provide frequent rest stops every couple of hours so it has an opportunity to stretch its head down. This is also a good time to offer water.

Reduce dust and other airway irritants by wetting or steaming hay (if provided). Bedding can help absorb ammonia fumes from urine, but you may want to lightly dampen it beforehand or use a dust-free bedding.

Be aware of the length of time you are asking your horse to travel. Eight to 10 hours in transport is not uncommon, but even six to eight hours is a long time for a horse to be on a trailer. Minimizing long travel times is a good factor for your horse's overall health and well-being, in addition to disease prevention.

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