

# STRANGLES

## What is it?

Strangles is caused by a bacteria. The full name of this bacteria is *Streptococcus Equi subsp Equi*. The bacteria infects the upper respiratory tract (e.g. around the head). It causes abscesses to form in the lymph nodes (part of the body's immune system). The disease starts to show itself up to 14 days after the horse has encountered the bacteria, this is the incubation period. Strangles is extremely infectious, this means it takes only a tiny amount of bacteria to cause an infection and so it is very easily spread.

## What are the symptoms?

Often the first symptom is a high temperature (over 38.5°C). When a horse has a high temperature they often become depressed and dull, going off their food and seeming uninterested in everything around them. Next they develop a snotty nose, often thick yellow/green in colour, usually down both nostrils. Sometimes this comes with a cough. Next the abscesses start to form. These are seen as swellings under the head, between the jaws and behind the jaw under the ears (not to be confused with grass glands). These swellings are hot and painful to squeeze. These swellings then burst, and pus comes out. Once they have burst, often the horse feels less painful and gets brighter. It usually takes about 2 weeks for a horse to progress from having a temperature, to the abscesses forming and bursting. Once they have burst and the abscesses have finished draining, the holes heal up and the horse usually gets better. Once a horse has had strangles, they usually become immune to it and don't get it again.



## What are the dangers?

Strangles is not usually fatal. But there are some exceptions. If the abscesses become large enough, they can press on the wind pipe. This is more common in ponies with thick jowls, e.g. Shetlands. These abscesses need lancing by a vet to reduce this pressure before the horse can't breathe.

The other danger with strangles is that the bacteria spreads from its usual breeding ground of the head, and moves around the body. This is called 'bastard strangles'. In these rare cases, lymph nodes all over the body (including inside the abdomen) form abscesses. These abscesses can't burst and drain like ones in the head and so this is very difficult to treat. It is very uncommon for strangles to do this.

## How is it spread?

Strangles is not airborne. It does not travel on the wind like flu. It is the snot and pus that is infectious. Usually this snot and pus is passed around on brushes, buckets, tack and on the hands, clothes and boots of people handling the infected horses. Remember only a very small amount of bacteria is necessary to spread the disease.

## How can we prevent it being spread?

Watch out for any horses that seem ill or have a snotty nose and put these horses in isolation. Avoiding riding past or near any yard with confirmed strangles. Avoid walking around yards you do not know.

Put any new horses with unknown histories into isolation for at least 2 weeks.

There is a vaccination for strangles. This is given into the inside of the lip of the horse. After the initial course, a booster is required every 6 months or every 3 months if there is an outbreak close by. The vaccine only really works if all the horses on the yard have it religiously. The vaccine cannot be used in the face of an outbreak. This means that the vaccine cannot be started if there is strangles on or near the yard. It only works if the horse is already having the vaccine regularly.



If you are on a yard with strangles, respect others and be very vigilant about cleanliness. Washing hands and boots with disinfectant, washing clothes as soon as you have left the yard. Do not touch anybody else's horses, avoid going to places where other horse owners often go, e.g. shows and shops, and do not take any horses off the yard until given the all clear. It is often very tempting to try and take your horse away from the yard to keep them safe but this is putting other yards at risk.

## How do you test for it?

There are basically two ways of testing for strangles. The first is to look for the bacteria themselves by taking swabs and culturing them (growing the bacteria) so that the labs can then identify them. The other is by looking for the horse's immune system's response to the bacteria. The body makes something called 'antibodies' which help to identify and fight infections. It is possible to single out



the antibody specific to strangles and measure how much the horse's body has in their blood stream. Once a horse has had strangles, they usually cannot get it again. This is because these antibodies hang around, often for life.

The only way of knowing a horse has currently got strangles is by taking a swab and growing the bacteria by culture then identifying it. This often takes 5-7 days. The suspect horse should be in isolation during this time.

## What is isolation?

Isolation means putting the horse somewhere so that it is not a risk to other horses, and handling them in a way that doesn't put others at risk.

In the case of strangles, this basically means making sure no other horses can come in contact with their snot or pus. So they need to be far enough away from another horses so they can't sneeze or cough on them. Somewhere that people will not be walking past their stable thus walking the snot or pus around the yard. Ideally only 1 person will handle the infected horse and



they will not go to any other part of the yard. Boots and hands should be disinfected and clothing should be washed as soon as possible. Buckets, hay nets, brushes, halters, rugs etc. should be kept separate and these must be disinfected before being used anywhere else. The horse should not be taken out of this isolation unless absolutely necessary, and even then, the horse must not be allowed to go near any other horses or anywhere that other horses go.

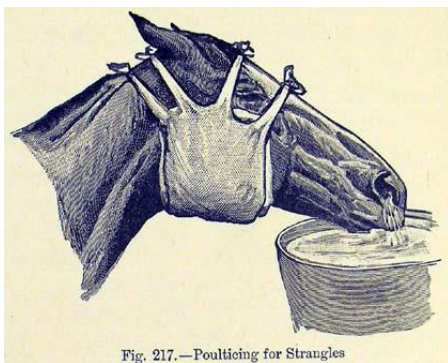
After the horse has been given the all clear by a vet, the whole area must be disinfected thoroughly. Strangles is easily killed by most disinfectants and doesn't survive well in direct sunlight. But it can live for up to 6 weeks in water troughs or drinkers.

Virkon is a good disinfectant to use as it is not deactivated by organic material. This means having muck on your boots or in the stable/area will not stop it working like it does with many disinfectants.



### How do we treat it?

Strangles is very easy to kill. Simple penicillin will kill it. However it is not that simple. If an infected horse is given antibiotics, it will only dampen the infection down. The bacteria 'hide' in the abscesses and the disease will flare back up as soon as the antibiotics are stopped. It is also widely believed that using antibiotics causes normal strangles to become bastard strangles or may make it more likely that a horse will become a carrier.

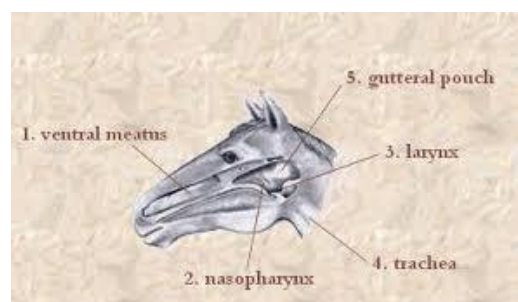


Therefore it is much safer to allow the disease to run its course. We give painkillers to control the temperature and the pain of the abscesses (normal bute does the trick). Beyond this, good nursing makes the biggest difference. Poulticing or hot packing the abscesses to encourage them to burst faster, clipping the area around the burst abscesses, cleaning the area regularly with salt water or dilute hibiscrub and using Vaseline to stop the pus scolding the skin, encouraging the horse to eat to keep their strength up, along with feeding soft and easy to chew food.

Eventually the abscesses will heal and the horse should recover uneventfully. If the abscesses refuse to burst, a vet can lance them to encourage drainage.

### What is a carrier?

Up to 10% of horses that have had strangles, become carriers. This is when the bacteria 'hide' in a horse's guttural pouch. The guttural pouch is a space with the head of a horse where all their important blood vessels and nerves pass through. This pouch has a very narrow entrance/exit which means often infection that manages to get in, can't get out. It is here that the bacteria live in carriers. They form very solid balls of pus called chondroids. Carriers will look well and don't tend to have any snotty noses or show any signs of strangles at all. But they release the bacteria intermittently for years and years, infecting everything around them. The only way of treating a carrier is by getting rid of these chondroids. Either by surgery, if they are too large to get back out of the narrow opening, or by endoscopy if they are smaller. If found soon after having had the disease, treatment is much easier as the pus has not become solid yet.



### **My horse has tested positive, what should I do?**

Isolate your horse immediately, begin treatment with bute and start the nursing as described above. Disinfect their stable and belongings, not forgetting any areas your horse has been to. Respect other horse owners, tell everybody including the yard owner/manager, make signs telling people to stay away from your horse and don't go to any other areas of the yard or near any other horses. If you have another horse, see to them first, fresh from home, then see to the infected horse last and go straight back home to change. Follow the rules of isolation and if you must go to the feed shop, wear boots that haven't been to the yard, fresh clothes and don't forget dogs, children or car tyres when disinfecting. Do not move your horse off the yard.



### **My yard has a suspected case, what should I do?**

Until proven otherwise, act as though the horse has strangles.

### **My yard has a confirmed case, what should I do?**

The yard should be put on immediate shut down. So no horses are allowed on or off the yard. This includes hacking out. Respect this. Limiting the exposure of other horses will allow the outbreak to die down much faster. This works in everybody's favour. Do not be tempted to move your horse away as this will put others at risk, even if your horse looks well.

Do not go near infected horses. Dip your boots in disinfectant, and disinfect your hands before walking into your horses stable.

### **I own/run a yard that has strangles, how do I handle it?**

Firstly put the yard on shut down. No horses should be allowed on or off the yard. This includes hacking out. A successful way of handling an outbreak is by designating each horse a colour.



Red is for horses that are showing symptoms of strangles. Even if this is just a high temperature (ideally take every horses temperature twice a day to catch early infections). These horses should be put in isolation away from any others.

Amber is for horses that are at risk. So all horses that have had any contact, either directly, or by way of the people handling them, with infected horses in the red group. These horses should be kept separate from the other horses or their handlers.

Green is for horses that should be safe, those that have not been in any contact with either the amber or red groups. Again these should be kept separate from the other groups.

Horses can move from green to amber to red but never the other way around. This will limit the spread of the disease.

Warn all other yards around, they will respect your honesty. Ensure any hacking routes passing near your yard are closed and signposted as to why they are closed.

Follow the 'what to do next' section once all cases have cleared.

### **My yard has had strangles, what next?**

Firstly establish where the infection came from. If this is known then it may not be necessary to search for a carrier.

Testing should start 4-6 weeks after the last horse that has had strangles is completely recovered. This is to make sure no new cases crop up, which would waste everybody's money as testing would have to start all over again.

There are 3 ways of testing for strangles after an outbreak has occurred. Blood test, nasopharyngeal swab and guttural pouch wash.



The blood test looks for antibodies which are the body's response to the bacteria as described earlier. If a horse has had strangles (whether recently or at any point in their lives) they will come back positive. This includes carriers. The test cannot distinguish between the three (old infection, recent infection and carrier status). These antibodies are present at all times, so only 1 blood test is required. It is sensible to only blood test those that have not shown any symptoms (those that have, will obviously be positive). Any horse that comes up positive to antibodies being present would need to either be swabbed 3 times or

have a guttural pouch wash. This is necessary to narrow down the search for a carrier if one is suspected on the yard.

The nasopharyngeal swab is cultured meaning they must grow the Strangles bacteria for this to be positive. The bacteria are obviously tiny and are not shed all the time. A single swab has less than a 20% chance of picking up a carrier. 3 swabs in a row, each a week apart are more likely to catch a carrier but still only 60% will be found. Only currently infected horses and carriers will show positive to this test, not historically infected horses that have recovered. If a horse comes back as positive, e.g. the strangles bacteria were grown, they would need a guttural pouch wash.

The guttural pouch wash involves an endoscope being put up the nose and entering the guttural pouches. If the horse is a carrier, we will immediately see lots of pus and be able to treat the horse there and then (although they will need scoping again 1-2 weeks later to ensure it has cleared). If the guttural pouches appear clean, we take a wash and send it off for culture to make certain. This catches virtually 100% of carriers in a single session.

All horses that had strangles during the outbreak should either be swabbed or have a guttural pouch wash. 10% of all infected horses will become carriers and put any others horses they meet at risk for years.

