



Horse Breather

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www.equinebreathing.com

Headshaking – an article for people using Equine Breathing for effective recovery

Horses that headshake are over breathing. Over breathing has a direct and damaging effect on the physiology which eventually results in symptoms such as headshaking. The damaging effects of over-breathing are reversible so if the breathing is trained back towards normal the symptoms diminish and eventually disappear. Owners can use Equine Breathing to do this. The principle is straightforward but putting it into practise can raise difficulties in some cases. This article aims to explain these difficulties and how to get through them. Fortunately most owners see enough results almost immediately to encourage them to continue.

What causes headshaking?

There is much research and discussion of the triggers for headshaking, including allergies to pollen, photosensitivity (UV), trigeminal nerve damage and the effect of over rich pasture. But the underlying factor is over breathing in my view.

The connection between breathing and health was discovered in humans in the 1950s by Russian doctor Professor Buteyko. In 40 years of study he never found a case where a person with good breathing had any chronic illness or ailments. So a horse with good breathing should not be affected (in terms of producing symptoms) by any of the triggers that cause headshaking in a horse that over breathes.

If you find it hard to believe that breathing can have a direct and damaging effect on the physiology it is easy to test it on yourself. Simply take rapid deep breathes for a minute or so and you will start to feel symptoms of lack of oxygen to the brain, such as dizziness or a headache. If you then reduce your breathing and make it as small as possible, you will reverse these symptoms. I don't recommend that you try this if you over breathe. But imagining blowing up balloons quickly may give you the idea.

The brain scan shows how quickly a change in the breathing affects the physiology. Within 2 minutes of voluntary over breathing the brain has become depleted of oxygen by 40% !

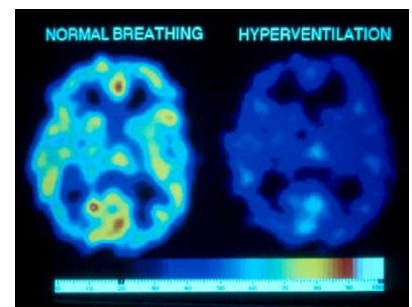
So the good news is that it doesn't matter what trigger has been diagnosed for your horse because as experienced by many owners, bringing the breathing back down towards normal is effective.

If you want to know why breathing has such a fundamental effect on the physiology, and results in symptoms, the science is summarised at <http://www.equinebreathing.com/how-it-works.php> or in more depth in *A brief overview of the Chemistry of Respiration* by Peter M. Litchfield, Ph.D.

Any kind of stress (physiological or psychological) causes an increase in adrenaline and adrenaline production is linked to increased breathing. So stress encourages over breathing. Stress has many forms which include

- traumatic events such as weaning;
- chronic situations such as lack of activity and overeating rich food;
- occasional situations such as travelling and competitions; and
- seasonal triggers such as pollen, warmth, UV etc.

Over breathing can make the skin hypersensitive, and some owners may also notice that headshaking is triggered or worsened by rain or wind. It depends on the genetic make-up of the animal. A horse that is more susceptible to pollen may headshake less in the rain, one that is affected by skin sensitivity may headshake more in the rain. The underlying cause is an increase in breathing due to stress.



[A brief overview of the Chemistry of Respiration by Peter M. Litchfield, Ph.D. California Biofeedback. Vol 19, No 1 2003](#)

Once a horse (or human) starts chronically over breathing, it gets worse over time and at some point the physiology can no longer cope and symptoms arise. These may be headshaking or other symptoms. At first the physiology can cope in all but the most difficult conditions, so the horse may only shake when ridden when the pollen count is high and it is a sunny day. But as the breathing deteriorates the physiology is unable to cope in an increasing number of conditions, so the horse may shake when ridden in any weather. As the breathing continues to increase the horse may start to shake also when NOT being ridden. Owners usually notice that their horse starts to shake earlier each year (given similar weather conditions) which is also due to the increase in breathing over time.

In the early stages, the physiology can often benefit from treatments such as use of a nose net, herbs, massage etc but as the breathing and physiology deteriorate these may become no longer adequate.

Starting Equine Breathing

The best way to start Equine Breathing is to do the simple 1N technique. Owners can use the free instructions and see for themselves the effect of Equine Breathing on their own horse. 1N is also good because it is a gentle introduction to improving the breathing. Even so, it can have immediate and significant effects and certainly, if it is done for 30 minutes a day for a week the effects should be noticeable in most cases.

If the headshaking is mild, of recent origin and responds immediately to 1N, and you have time to insert 30 minutes of 1N a day into your regular regime for the long term then it could be sufficient. However, if you do not have time or the headshaking is moderate or severe then once you are convinced that Equine Breathing is effective, it would probably be better to use a Breather. These enable you to provide a more powerful and efficient training program to reduce the over breathing.

It is a good idea to make a record of how bad your horse's symptoms are before you start. More on this later.

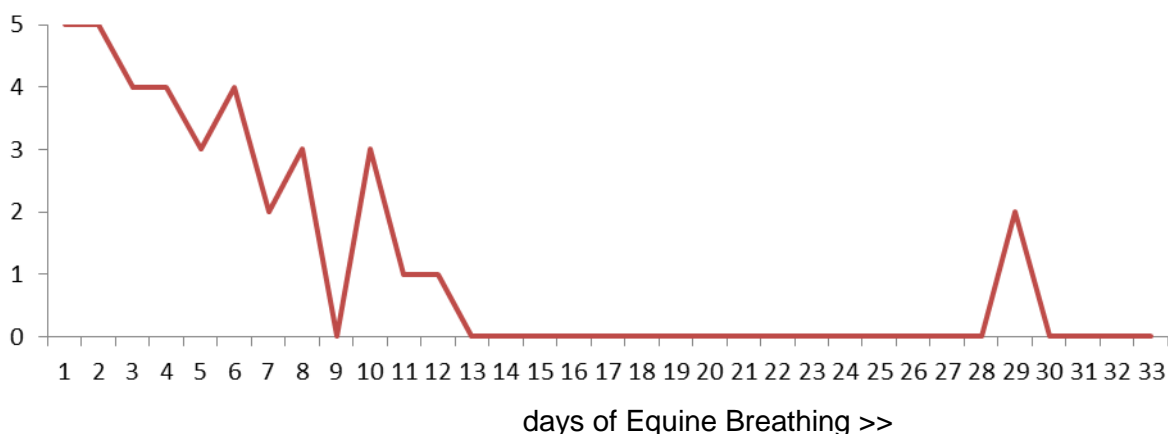
Continuing!

As I said, over breathing has a direct and damaging effect on the physiology (you saw above how quickly you can give yourself symptoms). This damage includes malfunctioning of for example nerve and muscle cells; and of systems such as the immune system. It also includes the build-up of resultant waste products in cells which need to be removed and eliminated to restore optimal physiology.

A horse that starts headshaking will have been over breathing for a long period before starting to show symptoms so there will be a lot of damage to repair and waste products to eliminate. This process (healing) is not magic – it requires metabolism (cellular activity) and takes time. It can be difficult for people to appreciate how much healing is needed, especially because the horse may have seemed to be well. But this is probably because the body is good at compensating and has lots of practice at it.

A general picture of the healing process for a headshaker given sufficient Equine Breathing, is an almost immediate reduction in symptoms, which continues over the next few weeks (may be longer in spring/summer). There then follows a longer period in which the symptoms may reappear at a reduced severity, under conditions that are bad for that horse.

This can be illustrated as follows but may be longer or shorter in real cases.



Eventually, if the horse is kept in conditions conducive to good breathing, the healing completes. Only then does the horse regain normal, optimal breathing. If Equine Breathing is stopped before the horse regains normal breathing the breathing starts to deteriorate again and eventually the physiology becomes compromised once more to the point that symptoms come back.

Unfortunately many people think that as soon as the symptoms disappear, they can stop doing Equine Breathing, but this is not the case. A very common mistake of owners with headshakers is to stop doing Equine Breathing during the winter. This allows the breathing to deteriorate and they find that the horse starts headshaking once again in spring. In fact winter is a great time to do Equine Breathing because the absence of some over breathing triggers makes it easier to reduce the breathing, which enables the physiology to concentrate on healing.

During this healing period the horse will probably be healthy which is why it can be difficult to understand that it is still necessary to continue with Equine Breathing. If the horse shows symptoms again, the owner can get upset and discouraged. This is why it is useful to have a record of the severity of the original headshaking symptoms. It is usually clear that the current symptoms are much milder than the original symptoms and this can be very helpful in maintaining confidence and continuing with Equine Breathing.

For complete recovery it is necessary to continue Equine Breathing until normal optimal breathing has been obtained. Even then I would encourage owners to continue in order to keep the breathing healthy in the face of any over breathing triggers. So it is important that Equine Breathing becomes a part of the horse's daily management regime.

Dealing with difficulties

The idea behind Equine Breathing is simple – reduce the over breathing back towards normal and the physiology improves. Reducing the breathing is inherently enjoyable as it is soothing and relaxing and many horses immediately appreciate this. Their owner can follow the recommended Equine Breathing program for 1N and or a Breather and everything goes smoothly. However some horses can have difficulties that make it hard to apply the Equine Breathing training. There are two main causes of these difficulties.

Psychological

Dominant horses can be reluctant to let go and relax in Equine Breathing sessions, in case they lose control or fail in their duty as leader somehow. They can resist attempts to do 1N by moving away, throwing the head around or even head butting. This can give the impression to someone trying Equine Breathing for the first time, that the horse doesn't want to do it and they may give up.

The solution is to take over the leadership role yourself. This can be done using “**control of movement**” exercises (see below for more details) as horses believe that anyone who controls movement is the leader. Control of movement exercises make the horse feel that it is safe to let go and relax as you now have responsibility for leadership and control. Being confident and gently persistent is also helpful. Check your own anxiety level, if this are high it will be difficult for the horse to lower theirs.

Physiological

Some bodies can find change (even for the better) difficult at first, especially if the physiology is badly compromised. A body that chronically over breathes has to institute compensation mechanisms in order to avoid the potentially fatal changes in acid alkaline balance. The compensation mechanisms are slow to turn off (in the order of days) and so when the breathing is reduced ie improved, the body's equilibrium is pushed out of balance. Ideally the compensation mechanisms should turn off, especially as they have unwelcome side effects, but initially the body does what is quickest to restore the albeit unhealthy equilibrium – it increases the breathing dramatically.

This **physiological resistance** manifests as coughs, snorts, sneezes, sighs and yawning. These can be a nuisance if you are using 1N (not so much with a Breather) as you have to try and keep your hand in place through the snorts etc. Gradually as you continue with Equine Breathing, the compensation mechanisms will shut down and then it will be easier for the horse's physiology to improve.



Some horses get an itchy nose when their breathing is improved. It seems likely that the itching arises when sensitive tissues damaged by low oxygen due to over breathing, start to heal. An itchy nose can be a real nuisance in some cases and unfortunately headshakers seem to be prone to it. If the horse is wearing a Breather the owner may get the impression that the horse is trying to get rid of the Breather. The Breather may get dislodged or damaged as the horse attempts to scratch the itch.

Managing the itchy nose can be quite tricky. The itch will eventually disappear as the physiology improves by reducing the breathing. If the itching is mild then a gentle scratch or even use of Rescue Remedy may be all that is needed, but if the itching is stronger then you will need to moderate the Equine Breathing program to a level that the horse is comfortable with until the itchiness stops. Horses must always enjoy Equine Breathing sessions and must not be made uncomfortable by the itching. You may need to do lots of very short sessions maybe even only seconds long. Doing a short session before, during and after exercise sometimes helps. Doing the Equine Breathing at a time when the horse is most relaxed may also help. You must find a way of reducing the breathing that produces the least itchiness and gradually as the itching reduces, the Equine Breathing sessions can be built up. It can require patience and skill but it will be worth it.

Equine Breathing causes the body to start to heal. Healing involves cell growth, repair and maintenance which results in the production of waste products. In addition the cells contain unwanted by-products from biochemical pathways that have failed to complete in the unfavourable environment resulting from over breathing. As the physiology improves these waste products start to be liberated, removed and then eliminated by the excretory organs (liver, kidneys, skin, digestive tract etc). The excretory organs have a maximum rate of excretion. If the healing rate is very high the excretory organs can no longer keep up and the waste products have an adverse effect. **This effect is known as clearing**. Clearings are well known in holistic healing (that is healing that is being done by the body).

Clearings can manifest in a wide range of ways. Itchiness, often in a localised place, is common in horses. Other signs include an unpleasant smell from the skin or in farts, increased thirst and urination, tiredness, sudden loss of weight in a particular part of the body, loss of appetite, skin changes, diarrhoea, starey coat, sudden and local production of grease in the coat, sudden bad temper or antisocial behaviour. If a horse that has been enjoying Equine Breathing suddenly no longer wants it then it is likely that s/he is clearing.

Clearings have a huge variety of forms and can last from seconds to days. If a horse shows signs of clearings then s/he is healing at the maximum rate. If the clearing is in any way uncomfortable for the horse then Equine Breathing must stop for one or two days to slow the healing rate and enable the excretory organs to catch up with the overload of waste products. A horse must never be made to continue Equine Breathing if they don't want it, there is no need and more-over it might teach the horse to mistrust Equine Breathing and you.

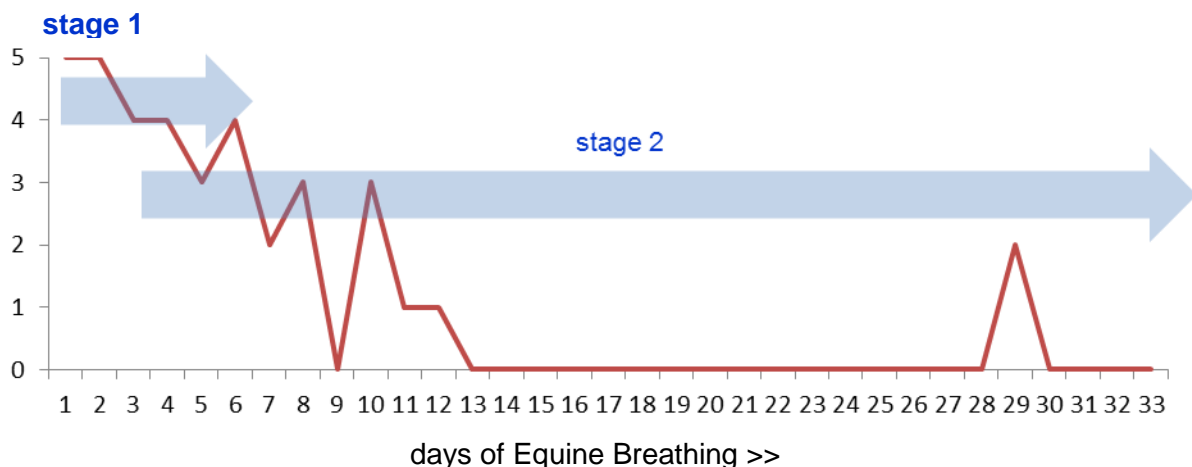
Another well known healing response is the "**return of symptoms**". After a period of improvement, the symptoms suddenly flare up again. If it is headshaking, it may even be more violent than the original symptoms. However there are often subtle differences from the original symptoms. They are usually short lived compared to the original and often don't seem to distress the horse as much as would be expected. Management of return of symptoms is the opposite from that of clearings as it is ok to continue the Equine Breathing program and indeed it may be a good idea to increase the Equine Breathing program to get the horse through the return of symptoms as quickly as possible. If you are not sure whether it is a clearing or a return of symptoms then assume it's a clearing and give the horse a day or two off.

Running an effective Equine Breathing program

It's a good idea to record the severity of your horse's symptoms before starting Equine Breathing. You will be able to look back at them and assess progress. Symptoms tend not to diminish in a straight line, they are better one day, worse the next and so on. Owners get upset (not surprisingly) if the symptoms worsen and tend to forget how bad they were before. It helps confidence to see that the symptoms are now less severe than they were before. There are guidelines on how to record the symptoms in the additional notes below.



For purposes of understanding how to run the most effective Equine Breathing program, we can divide it into 3 stages each with a different focus. Stage 1 is about getting the horse started, stage 2 about getting rid of symptoms and stage 3 about perpetuating the healing process after symptoms have disappeared. Stages 1 and 2 involve balancing the amount of Equine Breathing with the horse's capacity to improve



Stage 1

Many owners are surprised how quickly Equine Breathing can work. Sometimes the horse is significantly better after the first session and it is obvious that it is worth continuing. But it is less obvious if your horse has difficulties. At the start, difficulties are likely to be either the **psychological (leadership) issues** or the **physiological resistance** to change such as snorts, sneezes and an itchy nose or a mixture of both. If the difficulties are mainly psychological then you should still be able to do the recommended level of 1N or Breather use and of course use of control of movement exercises.

If the difficulties include a **physiological resistance** element then you may have to reduce the amount of Equine Breathing to a level that your horse can accommodate, and use exercise etc as described above. Always aim to increase the Equine Breathing to the recommended level, but only at the rate the horse can cope with. If you push too hard you risk making the horse dislike Equine Breathing. See above for more details. It may take longer to reach the recommended level of Equine Breathing and for symptoms to disappear but that is what is required by this individual horse.

Stage 2

By stage 2 you will have dealt with any psychological issues, and physical resistance will be less obvious. So now you can concentrate on getting rid of the symptoms. It is important to do the full recommended level of Equine Breathing to get rid of symptoms as fast as possible. If symptoms are still present even with the recommended amount of Equine Breathing then you can increase the amount of Equine Breathing (unless the horse is clearing).

If you can't do the full recommended level of Equine Breathing, just do as much as you can. It may take longer but hopefully you will be able to do enough to get rid of symptoms eventually.

At the same time it is very important to use Equine Breathing specifically to relieve symptoms. For example do 1N if your horse headshakes when you ride. If possible avoid leaving your horse in situations where they may headshake and snort etc. Use a fly mask if that helps and so on. Headshaking, snorting and sneezing work against Equine Breathing because they directly increase the over breathing. If you are rigorous in using Equine Breathing to directly relieve symptoms and you are doing a full, regular Equine Breathing program then you should be able to get rid of the symptoms in a while, so it is worth the effort. Then you can go back to your usual management regime and just continue with the normal recommended level of Equine Breathing.

Some horses may continue to have symptoms for longer than expected. It might be that the horse has a low resistance to symptoms and that symptoms are triggered at higher carbon dioxide levels than usual. If this is so, it means waiting until the carbon dioxide eventually reaches a sufficient level, for the symptoms to disappear.

Another possibility is that some stress factor is keeping the adrenaline level high which is counteracting the breathing reduction. The stress could be physiological such as inactivity due to stabling, or psychological such as anxiety or loneliness. It could even be your own anxiety (having a horse that headshakes is very upsetting), especially if the horse is worse when you are around. Any calming and relaxing therapy such as shiatsu or massage (for you as well as your horse!) might help.

So in this stage you may be using Equine Breathing intensively to get rid of symptoms and therefore may push the rate of healing to maximum and get clearings. Some horses never show any clearings (or the owners miss them because they are so mild), but if your horse does show clearings it is very important that, you recognise them and act accordingly by stopping the Equine Breathing for a day or two. If you don't then you risk causing your horse to lose trust in you and in Equine Breathing. Many horses start to want unrefined grey sea salt in this stage and may take large amounts at times. It seems to help the healing process and can sometimes it have a dramatic effect in relieving clearings. Be sure to offer your horse unrefined salt in a bucket so that they can take what they need.

Clearings tend to be more common at the start of a healing process and if there is more than one they tend to be milder each time. Often there is an obvious improvement after a clearing.

In this stage the symptoms may flare up or reappear some time after they disappeared such as on day 29 in the chart above. This may either be a return of symptoms or it may just be that the horse is not yet able to cope with the situation for example a very hot day, a competition or moving home etc. Whether it is a return, or the original symptom, your response should be to increase the Equine Breathing until the symptoms are relieved (or a clearing occurs).

The horse may have periods of strong breathing, these are part of the healing process. The horse may also go through phases of being tired and if necessary you may have to cut down their work. The tired phases don't usually last long and I associate them with intense healing.

To sum up; the aim of your Equine Breathing program in this stage is to get the healing process to go as fast as possible within the horse's capacity for healing in order to get rid of symptoms. The horse's capacity for healing may vary from day to day (even hour to hour sometimes) so you may be constantly adjusting the level of Equine Breathing in response to symptoms and clearings. As the symptoms become insignificant it is less urgent to maintain the Equine Breathing at the highest possible level and a lower intensity program can be adopted.

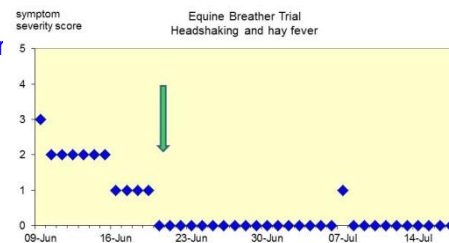
The physiology involved and my experience with owners and their horses give me confidence that reducing the breathing is generally sufficient in itself to enable a horse to recover from headshaking so it is not usually necessary to do anything else. But if you wish to use any holistic treatment such as homeopathy etc it may help the healing process and any bodywork such as massage that the horse enjoys also contributes.

However some herbs and supplements may work against reducing (improving) the breathing. If the horse is fed more supplements than it needs (and this amount changes according to the state of the physiology) the excretory organs have to process and eliminate the excess. The excretory organs dictate the maximum rate of healing and so if they are burdened with waste products arising from supplements it detracts from the body's capacity to heal. If you wish to continue with herbs or supplements I would suggest that you offer them separately in a bucket so that the horse can take as much or little as they need.

Stage 3

In stage 3 the horse will no longer or only rarely be showing any headshaking or associated symptoms but it is essential to continue Equine Breathing. However the intensity of the program can be lower than in stage 2. This program should continue until the healing has completely finished. That is until the horse never shows any headshaking or other symptoms under any circumstances, and no longer needs any treatments; and until the breathing returns to normal in all conditions. Then the Equine Breathing program can be further reduced to a maintenance level.

In the first spring after starting Equine Breathing the horse is likely to develop symptoms again but hopefully they will be mild and short lived. The Equine Breathing program needs to be increased once more until the symptoms have fully disappeared.



Case study – Curyghan's headshaking symptoms

<http://www.equinebreathing.com/trials-and-case-studies.php>

Please remember that Equine Breathing must always be enjoyable for the horse and it is your responsibility to make sure that this is always the case. Equine Breathing is a training and not a treatment for specific symptoms. There may be cases where it can't help, but you can see if it works for your horse by doing 1N - without spending any money. If you have any queries please don't hesitate to ask.

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Additional Notes

How to measure headshaking symptoms – initial assessment

- List the symptoms including for example headshaking, snorting, nose rubbing, runny eyes, laboured breathing etc
- Video the symptoms
- Describe and quantify each symptom

Headshaking

- number of shakes per minute or hour etc
- violence of shakes
- range of the shake (how high, how low)
- what triggers shakes
- how much of the day
- what can the horse do when shaking eg be ridden, worked in hand, graze etc

Snorting, nose rubbing

- frequency (how many snorts per minute)
- strength (soft, medium, violent)
- when does it occur (times of day, conditions, locations etc)

Some common misconceptions and mistakes

- Not realising that Equine Breathing can help
- Not realising the power of Equine Breathing - that breathing has a direct effect on physiology and therefore health
- Not expecting complete recovery and so not making full use of Equine Breathing to achieve it
- Not understanding that Equine Breathing encourages a healing process and is not just a way of masking symptoms
- Not doing adequate (recommended level of) Equine Breathing to get rid of symptoms
- Not understanding how much unseen damage is done by over breathing
- Not understanding how much time the healing process takes
- Not understanding that the healing process requires energy and resources in the horse's body
- Not understanding that a horse that is 'healthy' may still be healing
- Not understanding that Equine Breathing must be continued AFTER symptoms have disappeared, and for example stopping the Equine Breathing during the winter
- Not recognising that the horse is still over breathing (not recognising normal breathing)
- Not continuing Equine Breathing until normal breathing has been regained

Some difficulties

- Dominant horse is worried about going off duty, letting go (do control of movement exercises)
- Itchy nose and or face (see above)
- Getting the balance between enough and too much Equine Breathing when overcoming an itchy nose
- Recognising and correctly managing the different healing responses especially clearing
- Symptoms worsen or reappear (review initial assessment and see how to handle returns)
- Existence of powerful adrenaline triggers, such as horse's or your own anxiety which obstructs the breathing training (address using relaxation methods, massage, homeopathy, acupuncture etc)
- Difficulty having time to do adequate amounts of Equine Breathing (try and enlist help of friends at least until symptoms have significantly reduced)

Things to avoid if possible

- Tying to train horse to stop headshaking
- Use of restrictive tack to restrain headshaking
- Inactivity through stabling etc
- Stressful situations or events (at least until symptoms have disappeared)

Things that can help the healing process

- Continuous gentle movement
- Living out in a herd with adequate shelter from sun and flies
- Grazing that involves plenty of walking
- Fly protection, heat protection, sun etc especially in the early stages before symptoms have gone
- Calm environment
- Holistic treatments
- Relief of dominance (if necessary) with leadership exercises

Control of Movement Exercises

These are based on pressure and reward.

- Ask the horse for a simple movement by gentle tension on the headcollar rope.
- Release the pull IMMEDIATELY the horse complies.
- Rest the horse for at least 20 seconds as a reward

Examples

- One step forward or backwards or to the side
- Head down.
- Leading is a very useful exercise.

Walk forward and expect the horse to follow. If they don't they will get a pull on the headcollar which releases as soon as they step forward to be beside you.

When you stop, if the horse continues, they get a pull from the headcollar. If they don't step back into position beside you, then ask them to do so before giving a reward of a rest. When the horse always stays in position beside you by following your movement with no need of the lead rope, s/he respects you as the leader.

If you are consistently lead in this manner whenever you handle the horse s/he horse will become used to thinking of you as the leader and will find it easier to relax and enjoy Equine Breathing sessions.

The contents of this article are not a substitute for veterinary advice. If the reader has any concerns they should seek independent professional advice from a vet.