

# Managing Equine Back Pain: 6 Steps to a Strong, Healthy Back

One of the most effective ways to improve a horse's longevity while promoting their well-being and soundness is by ensuring they have a strong, healthy back. Considering that over 90% of working horses are believed to suffer from some form of back pain, the necessity to incorporate targeted exercises to strengthen and support their cores and backs is evident.

Achieving a healthy back begins with recognizing some of the most common causes of pain and discomfort. There are many, but can include:

- Poor saddle fit
- Injury
- Too much exercise for the horse's performance level or condition
- Poor posture
- Poor conformation
- Joint diseases (such as arthritis)
- Rider imbalance
- Rider weight
- Improper hoof angles
- Training methods

Understanding and addressing the cause of the back pain and any possible compensatory issues will improve prognosis and reduce risk of reinjury throughout the rehabilitation and maintenance program.

## 1. Pain Management with PEMF Therapy

For the healing and strengthening to truly begin, the pain needs to be addressed. Depending on the cause and severity, some vets may recommend NSAIDs or painkillers initially. For owners that prefer a more holistic approach, desiring drug-free options or even to support prescribed medications, PEMF is a proven beneficial complementary therapy, and has even been shown to improve absorption and efficacy of medications.

One of the greatest benefits of PEMF therapy, is that it heals and supports the natural functions of the cells, tissues, and body as a whole *while* providing pain relief and reducing inflammation.

Regularity of sessions will depend on the horse's unique situation, but generally, maintenance sessions can be once every 1 to 4 weeks. It is a worthwhile addition to the horse's management program throughout recovery and maintenance. Once the pain is under control, it becomes easier to start focusing on back strengthening exercises.



*Figure 1: Dropped backs, although common with aging horses, are a sign of weak core and back muscles. In addition to being a possible result of pain, dropped backs are also at increased risk of injury.*

## 2. Chest and Back Lifts

Chest and back lifts are great exercises that isolate some of the muscle groups responsible for lifting and supporting the back. By performing these regularly, it's also an easy way to observe if the horse has limitations in the range of motion over their spine, which may be indicative of continued pain or an issue still needing to be addressed, such as after a ride which could be a sign of saddle fit issues.

If the horse has a tendency to slouch into their shoulders (withers drop and the sternum becomes easily palpable at the front of the chest), the chest lift can help engage the thoracic sling – an essential network of muscle and fascia that supports the front of the horse in the shoulder cradle over their forelimbs.

Ask the horse to stand squarely with a relaxed neck, lowered as much as necessary to relax the ventral muscles. Apply a gentle pressure on their chest or just between their front legs with the objective of them engaging those muscles and lifting through the thoracic sling. Look for the chest muscles contracting, the sternum pulling back, and a possible lift in the wither.

One effective way to ask is to interlace your fingers with your fingertips gently pressed and scratching up into their chest. Some horses may find this ticklish, while others pleasurable, so just be mindful of how much pressure you apply and how they may react.

The back lift can be executed in a similar way. With the horse standing square and with a neutral neck carriage, stand at their girth and use the same pressure/interlaced fingertips to scratch into the underside of their belly, just behind where the girth lies. With this, watch for the back to lift. You may say the muscles alongside the spine flex upwards to level and possibly even arch the back slightly. This is a good sign for a healthy range of movement.

If the horse reacts strongly or otherwise struggles, this may be indicative of restrictive pain. Some horses are just reluctant to lift their backs; I've found the interlaced fingers/scratching technique to be most effective at inspiring the desired response.

## 3. Core-building with Pole Work

The possibilities with poles are almost endless, and studies have now proven their effectiveness at targeting specific muscle groups for core support including the longissimus dorsi (muscles that run parallel to the spine) and rectus abdominus (muscles that run parallel to the ventral midline along the abdominals).

Interestingly, pole exercises performed at the walk actually target more of the supporting trunk muscles than at the trot; this is likely due to the absence of the momentum that would otherwise help them over. (Compare running up the stairs with taking one step at a time. One requires more cardio but less effort, the other more effort.) Raising the poles encourages even more engagement through their flexor chain, stretching their necks and backs, and requiring more hip flexion.

The following exercises can be performed in-hand or under saddle, and most need only be performed a few times per session. Depending on the experience and fitness level of the horse, it may be beneficial to introduce them in-hand. With each, focus on a steady rhythm and correct posture, but it is better to let the horse go slowly and figure it out. Encourage them to think it through, and they will be more likely to work the desired muscles as well.

At the walk, placing poles 2-2.5 feet apart, begin by simply walking through in both directions a few times, encouraging the horse to stretch their necks and pay attention to their feet. Placing 3 to 6 poles parallel in a single grid

is sufficient to develop proprioception and target the desired muscle groups. Increase the intensity by raising the poles and deepen the articulation of the joints. Note that you will need to shorten the distance slightly with increases in pole height.

At the trot, although the momentum of the gait helps them, done correctly and mindfully, they will help develop overall expression, cadence, build topline, and help develop better evenness in their stride. The optimal distance between trot poles may vary slightly depending on your horse's stride, but 3 ft is good place to start. Like the walk poles, 3 to 6 in succession is plenty. If the horse barges over them with an inverted frame, however, regulate the rhythm, or return to the walk exercises, reinforcing the correct posture.

Once the horse is comfortable with the standard parallel grid, you can play around with raising alternating ends, or raising all on one side, or both, and going through them both ways. Do pay attention for signs of fatigue, and rest and reward accordingly.

To increase the challenge further, setting up a fan shape with 4 to 6 poles adds additional layers to the concentration and proprioceptive awareness required. Fans can be set up with the narrow ends 2 ft apart, and the fanned out ends 3-3.5 ft apart, or adjusted to fit on the curve of a circle. Fans are handy, too, because you can use them for both walk and trot exercises without having to adjust distances. Rather, your horse must find his way over, and learn to adjust his stride length in addition to the other benefits. With the fan, you can also raise one or both ends to increase joint articulation and effort required.

There is an endless myriad of ways you can set up and play with poles but keeping it simple still achieves the desired results.

#### 4. Reversing for Good Posture

Reversing can be a lot more challenging than you might think. It's a core conditioner, requiring the abdominals and the muscles of the flexor chain. To do it correctly, however, you'll want to ensure a neutral spine and neck as you back up for 4 to 10 steps.

Increase the challenge by turning the reverse into a schaukel: reverse 4 to 6 steps from square and immediately walk forward again for 4 to 6 steps, and repeat. Be sure the horse remains straight throughout his body with a neutral neck carriage.

This exercise helps develop the "push" lifting through the thoracic sling as well as back strengthening.

#### 5. Mobilize the Shoulders

There are several ways you can ask for shoulder mobility which forces the horse to take more weight on their hindquarters and engage their thoracic sling.

For a young or unfit horse, you can begin by asking for a turn-on-the-haunch from a halt. Ask for enough forward at the same time as sideways to encourage walking steps with the hind end, avoiding planting and pivoting. Once you've developed a basic understanding of the lateral aid, you can incorporate this concept into more movements.

Under saddle, incorporate leg yields to develop the shoulder girdle and core stability. Executed along the rail or by riding the quarter-line to the rail will familiarize and help condition the movement for both horse and rider before moving on to more challenging exercises.

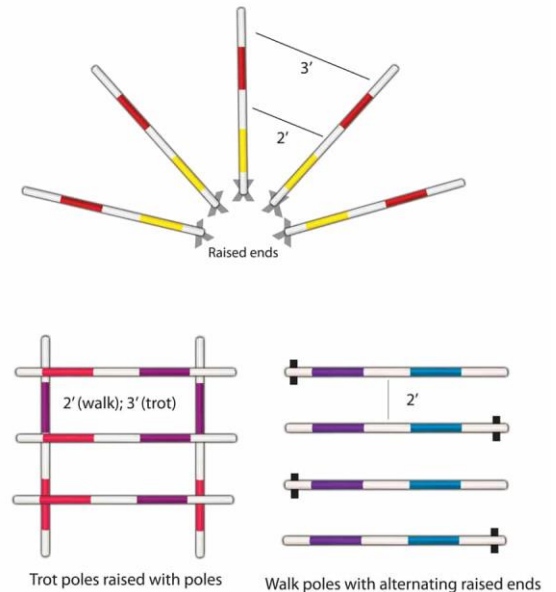


Figure 2: Examples of some pole layouts. Top: fan; Left: raised trot grid; Right: Walk pole grid.

This can be performed at the walk or trot, but best introduced at the walk: on a circle, ask for 4 to 6 steps of shoulder-in, then straighten for 4 to 6 steps, and ride 4 to 6 steps haunches in. Straighten as before, and repeat. This deepens engagement of the thoracic sling, while also developing the adductor muscles of the hind limbs. Be sure to perform this exercise in both directions and with reasonable expectations for the horse's level of education and fitness.

## 6. Hills for Core Stability

Either in-hand or under saddle, you can make use of a shallow ditch by serpentine along its length. Walk down into the ditch at a slight angle and up the other side, turning to go back down into the ditch as you crest the hill, and so on. This exercise will help strengthen lateral stability in addition to the core muscles.

Leg yielding up a hill is another exercise that really forces deep engagement of the thoracic sling along with the other benefits of hill work. As you ride up a long slope, ask for 4 to 6 steps moving laterally (ideally starting in their stronger direction), then straighten for a few steps, and ask for a leg yield off the other leg.

All of these techniques and considerations will help strengthen the muscles responsible for supporting the back and improving overall posture. Like any recovery or fitness program, there will be highs and lows making it essential to monitor your horse for any symptoms of continued discomfort. PEMF therapy can support the active healing and pain management throughout, but educating and developing the horse in ways that strengthen and support their backs is the kindest favour you can do for a ridden horse. Train the habits you want to create, ensuring the horse is performing with a correct posture, and they'll develop the foundation needed to carry themselves (and you) for years to come.