

Longeing Do's and Don'ts

Pivot ... pivot ... pivot! 15 tips for keeping you and your horse safe at both ends of the longe line

Whether it be for training or exercise, longeing horses is common practice for many horse owners. Over time, having a horse go in a circle might have repercussions. “Horses are well-known for having joint problems ... and horse people are well-known for longeing their horses. Might there be a link?” says Brian Nielsen, PhD, PAS, Dipl. ACAN, a professor of equine exercise physiology at Michigan State University (MSU), in East Lansing, who’s researched the impact of longeing horses on their soundness.

Along with Nielsen, we’ve spoken with two other experts—a veterinarian and a rehabilitation professional—to help us differentiate between scenarios where longeing is beneficial and times when it could do your horse more harm than good.

Benefits of Longeing Horses

Both equestrians and scientists agree on the benefits of the very common practice of working a horse on the longe line. With some guardrails in place, longeing can serve as an effective training and physical conditioning tool for your equine athlete. It presents several advantages over ridden exercise. Firstly, you’ve eliminated the weight of the rider—along with their potentially imperfect balance and coordination. Longeing also provides a practical avenue for building fitness, and owners can integrate it into a groundwork program to establish voice commands and other basics of a horse’s training before climbing into the saddle.

“Longeing can be used to train the horse to move correctly in a rounded outline, reaching for the bit,” says Hilary Clayton, BVMS, PhD, Dipl. ACVSMR, FRCVS, professor and McPhail Dressage Chair Emerita at

MSU. Clayton, a seasoned veterinarian, has spent the past 40 years researching equine locomotor biomechanics, lameness, rehabilitation, and conditioning programs, earning her widespread recognition in the field.

“Putting a horse on the longe before riding is also a good way to warm up and loosen up his back muscles,” Clayton adds. “Bringing blood flow to the area through movement can help turn a rigid, braced



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back into a soft and supple one, making it easier and more comfortable for your horse to carry you.”

Lastly, when it comes to lameness diagnosis, longeing is a vital part of your horse doctor’s toolbox. “Veterinarians turn to circular trotting examinations to accentuate a potential gait deficit,” explains Nielsen. “That’s because certain types of lameness are more apparent when the horse is moving in a circle rather than a straight line.”

“In recent years we’ve learned a great deal about how circular motion affects the horse’s movement and body,” Clayton adds, with researchers confirming in 2023 that the biomechanics of the horse’s legs on the inside of the circle differ from those on the outside¹. More on that later.

Risks and Dangers of Longeing

Despite its usefulness, longeing can present both good and bad consequences. “The fact that it’s used to reveal or accentuate lameness during veterinary examinations is pretty good evidence that uneven weight loading may create issues,” Nielsen says. So, before we share some longeing do’s and don’t’s to help keep you and your horse safe at both ends of the rope, let’s look at some common equine injuries that can result

from the exercise—especially when trainers use it improperly.

- Accidental slips and falls that result in pulled muscles, joint injury, or other musculoskeletal damage.
- Acute soft tissue injuries, especially of the collateral ligaments of the foot. “Collateral ligaments are found on the inner and outer surfaces of most joints, where they help to stabilize the joint and restrict movement to flexion and extension,” Clayton explains. “Due to their role in limiting side-to-side movement, collateral ligaments work particularly hard during circular exercise.”
- Repeated pounding on tight circles, especially at speed, can irritate and inflame stiff, arthritic joints.

Understanding The Ground Reaction Force

While veterinarians’ work typically centers around biology, the impact of longeing on the horse’s body can be explained by physics. The biomechanical concept of ground reaction force (GRF) divulges the true impact of longeing on the horse’s entire musculoskeletal system.

Newton’s third law of motion tells us that for every action there is an equal and

opposite reaction. “When a horse moves, his hooves apply a force to the ground, and the ground, in turn, applies an equal and opposite force to his body,” Clayton explains. “This reaction force is the GRF, and it provides propulsion for locomotion.”

Clayton describes the three types of GRF:

- The horizontal (forward/backward) GRF determines the speed at which the horse travels.
- The vertical GRF counters gravity’s downward effect. If the vertical GRF exceeds gravitational force, the horse propels upward—over a jump, for example.
- The transverse GRF causes the horse’s body to turn—and that’s the one we’re especially interested in when it comes to longeing. “The transverse GRF increases when the horse is turning,” Clayton explains. “The smaller the circle and the greater the speed, the higher the transverse force must be. The easiest way for the horse to generate a turning force is to lean into the circle. When the horse leans while moving forward, the GRF acts forward, upward, and inward.”

Because the horse relies on speed, not dexterity, to escape predators in the wild, he has evolved to travel fast in a straight line rather than turn on a dime. Repeatedly leaning into sharp, quick turns is not natural for the equine body. Clayton has studied the (literal) impact of this kind of movement on the horse’s musculoskeletal system. “Leaning increases tension in the soft tissues and joints on the outside of the circle—specifically the collateral ligaments—and increases compression in the bones and joints on the inside of the circle,” she explains.

With these biomechanical effects in mind, let’s dive into our experts’ 15 tips for making longeing a safe, beneficial practice for both you and your horse.

Longeing Do’s and Don’ts. Part 1: Keep Yourself Safe

- ✓ 1. DO choose a safe location. A fenced-in round pen or arena provides the ideal setting to keep your horse contained if he gets loose. It happens to the best of us!

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Wearing gloves helps prevent rope burns, should your horse or pony get heavy in the bridle, and a helmet can protect your head in case he gets close to you and kicks out.

Realistically, however, you might find yourself having to longe out in the open, especially at a horse show. Stay aware of other horses and handlers around you. You wouldn't want to overlap circles with another horse being longed or cross the path of one heading to a jump.

✓ 2. DO carry a whip and wear gloves. Gloves help prevent rope burns should your horse get heavy in the bridle, cavesson, or halter and pull. Never strike your horse with a whip. Rather, think of a longe whip as an extension of your arm; use it to help keep the horse out on the circle and to encourage him to increase his impulsion (as a supplement to voice).

✗ 3. DON'T wrap the longe line around your hand. Horrific injuries have happened to equestrians who have looped lead ropes and longe lines around their fingers, wrists, and arms. If the horse forcefully pulls, or if you trip and fall, you want to be able to drop the longe line in an instant and keep all your digits intact. You also should not wear spurs as they could cause you to trip.

✓ 4. DO stay out of kicking range, and always wear a helmet while longeing. Even if you are confident your horse would never kick you, ensure the circle is large enough that an excited buck won't send dirt—or

worse, a flying horseshoe—into your face.

“And if the horse swings his haunches in toward you, be aware that he may be preparing to kick,” says Clayton. “Take immediate evasive action by pulling his head to the inside of the circle” to disengage his hind end.

✗ 5. DON'T allow the horse to overpower you. Keep your elbows bent and at your sides so you have some leverage if necessary. “If your horse bolts, dig your heels into the ground and lean back against the longe line, which should be used in a pull-then-release manner,” says Clayton. “Once again, gently but firmly pull his head and neck into the center of the circle.”

✓ 6. DO stay in control. “Longeing should always be done in a controlled manner,” she continues. “If a horse is fresh, longeing can be used to take the edge off and allow him to get rid of some excess energy, but this does not mean he can careen around at warp speed bucking and kicking. The handler needs to always be in control, and if this is not possible on the longe, then they need to find an alternative form of exercise.”

Find some helpful tips from the United States Pony Clubs on safe longeing at tinyurl.com/yeyppjwuv.

Part 2: Prevent Horse Injury

✓ 7. DO watch the time and frequency of your longeing sessions. “I personally don't longe for longer than 10-15 minutes at a time,” says Clayton.

Nielsen recommends using any round pen work and longeing as an occasional training tool rather than a daily practice before each ride. He says he firmly believes if we did a lot less circular exercise, we would see a lot fewer joint issues with our horses.

✓ 8. DO mind your footing. Excessively deep footing accentuates the strain on the soft tissues of the foot and leg, which are already strained by the torquing force of circling. Equally problematic, hard, unyielding ground adds concussion to the bones and joints of your horses' legs. In addition, muddy, slippery surfaces increase the chance of your horse losing his balance and “wiping out,” causing injury.

✓ 9. DO make the circle as large as possible to minimize the transverse GRF. Clayton is an advocate of big circles, and Nielsen and colleagues have confirmed in their study that turning radius matters. They found that smaller circles increase pressure on the bones and joints of young cattle and change the molecular makeup of their cartilage in less than two months, even just at the walk². “The smaller and the faster circular exercise is performed, the more damaging it is,” he concludes. Bonus: Again, a larger circle also helps keep you out of kicking range.

✓ 10. DO warm up your horse progressively. Just like you wouldn't let him explode from a standstill to a gallop if you were in the saddle, proper warm-up rules also apply on the longe line. Researchers have shown that trotting in a circle places less strain on the horse's joints than walking and cantering in a circle³. This could be because the trot is the most stable, balanced, and symmetrical gait of the three, says Clayton.

✗ 11. DON'T longe a horse that's in the early stages of recovering from a soft tissue injury, especially collateral ligament desmitis,” says Clayton. The equine rehabilitation world widely acknowledges this contraindication, says Aurora Sochan,



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Longeing provides a way to watch for movement asymmetry and lameness. Loop your veterinarian in if any concerns arise.

CVT, VTS-EVN, CERP, owner of In Gait Equine, an equine physiotherapy and rehabilitation practice based in New London, New Hampshire. Sochan cites two good reasons for this. “Firstly, horses tend to lean into the circle with their bodies, resulting in uneven loading and abnormal stresses on the injured soft tissue structures,” she says. “Also, horses in rehab tend to see the longe line as a place to play and explode, which can result in reinjury of the tendon or ligament.” Instead she recommends long-lining (aka ground driving) for rehab cases that need to avoid both working in circles and carrying a rider.

Nielsen agrees with this precaution and takes it one step further, considering any kind of preexisting injury a no-go when it comes to longeing a horse.

Part 3: Maximize the Benefits of Longeing

✓ 12. DO monitor movement symmetry and look for lameness. Longeing provides a great opportunity to evaluate your horse’s gait. Is he tracking up evenly with both hind legs? “Watch the head and neck movements, which may naturally show a small downward motion during weight-bearing of the forelimb on the outside of the circle,” Clayton says. “Be observant and note if the

head bob changes in severity, which could indicate lameness. Loop your veterinarian in if any concerns arise.”

✓ 13. DO use longeing to your advantage to get your horse fit. “Longeing gives us the opportunity to improve both musculoskeletal strength and cardiovascular fitness without any extra weight or rider interference,” Sochan says. “This can be particularly useful for a horse that would benefit from building up fitness before he is ready to resume ridden work.” A prime example? The post-surgical kissing spines patient.

✗ 14. DON’T rely on longeing to replace other important aspects of your horse’s training and management. Letting your horse “blow off steam” on the longe line doesn’t replace the benefits of proper turnout. Likewise, longeing him to exhaustion to give the appearance of a quiet, submissive mount in the show ring contradicts the principles of ethical horsemanship.

✓ 15. DO learn how to properly use longeing aids. “Longeing with resistance bands can help promote muscle activation, which can, in turn, correct compensatory or asymmetric gait patterns,” says Sochan, pointing specifically to the Equiband system. “Equiband’s ability to activate core musculature makes it an effective tool for building strength and improving proprioception.”

She does warn users to set the bands, which go around the horse’s abdomen and hindquarters, loosely at first, progressively increasing resistance as the horse gets fitter.

Take-Home Message

Longeing puts additional stress on your horse’s joints, tendons, and ligaments. Therefore, our sources recommend longeing equine athletes with discretion and caution. Keep your circle big and your pace moderate. With a clear understanding of the effects of longeing on your horse’s body, you can make strategic training decisions that will help—not hinder—the longevity of his athletic career. 🐾

References

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