# POLE WORK

Building Concentration, Coordination, and Strength in the Horse

ANN KATRIN QUERBACH Author of 50 Best Arena Exercises and Patterns

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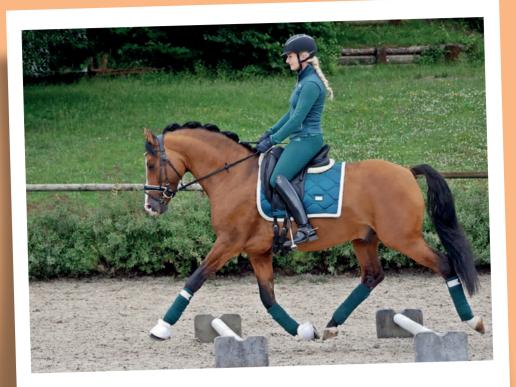
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# 1. WHY IS POLE WORK GOOD FOR HORSES?

Working over ground poles is a familiar concept to most riders. Likewise, riders are also often aware it's good for their horses, maybe as a way to improve rhythm. That's great! But in that case, which exercises actually improve the horse's rhythm? And what's the best sequence in which to do these exercises, in order for them to be most effective? In this book, I'll explain how you can best use the many different options for pole work with your horse, allowing you to train systematically.

But first I'd like to provide an overview of the advantages that gymnastic exercises with ground poles can offer. For many horses, it's difficult to maintain an even tempo over a longer period of time. Working over poles is a way to both improve and check up on the horse's rhythm. This work develops coordination, balance, and concentration for both horse and rider. At the same time, the rider develops a feel for the correct trot, active hindquarters, and lifted back. The rider learns to maintain a "positive tension" (also referred to as "tone" or "engagement") in her body, even as she stays loose enough to follow the horse's movement.

The hindquarters are active, as the horse must lift his hind legs significantly higher than usual in order to clear the poles, and the coordination of the dorsal and ventral muscle chains is thereby developed. This causes the horse to lift his back and engage the nuchal ligament of his neck. How can a horse build muscles in a manner that's both systematic and correct? That's exactly what I'll explain in the following pages! The exercises are presented in such a way that they logically follow one another. In addition, you'll always find further exercises ("Side Notes") on specific topics, which include suggestions that can be especially beneficial.

First, let's clarify a few terms and concepts.

#### A Short Explanation about Muscle Chains

Skeletal muscles function via muscle chains. These chains connect different regions of the body with one another and allow the horse to move. The dorsal and ventral muscle chains are the most well-known—they work antagonistically (against one another).

#### The Dorsal Muscle Chain

When describing the horse's dorsal muscles, we are referring to those that run along his back. These begin with the muscles of the upper neck, followed by the ligament system of neck and back, and then the muscles of the back, loin, and croup. Other important muscles are the hamstrings, which are part of the dorsal chain.



A simple design—the dorsal muscle chain runs from the upper neck muscles, over the neck and back, all the way to the posterior thigh muscles.

The ventral muscle chain runs along the bottom of the neck, over the abdominals, and all the way to the frontal thigh muscles.



#### **The Ventral Muscle Chain**

This runs along the ventral (belly) side of the horse. This includes the lower muscles of the neck, the abdominals, the flexors of the transition between the thoracic spine and the lumbar spine, the flexors of the lumbo-sacral joint, and the front thigh muscle.

The ventral muscle chain of the neck works closely with the abdominal (belly) muscle chain; in this way, they both strengthen each other. The abdominal muscle chain is composed of multiple muscular layers, which cross over one another on multiple levels. These run from the breastbone over the ribs, all the way back to the pelvic and groin area.

Unless these muscle chains are all worked correctly, the horse doesn't stand a chance of developing the carrying ability and "pushing power" he needs—this results in the false development of his muscles to compensate for their incorrect usage.

What does that mean, exactly? Instead of the correct muscle chains developing, individual muscles take over the work for those that are too weak, just to get through the daily movement required. This might originate with incorrect riding, or because of blockages and tension in the body. If these blockages and incorrect muscular development remain factors for too long, it will have a negative effect on tendons and ligaments, which can lead to inflammation and tears (the dreaded soft tissue injury).

Therefore, I urge you to pay careful attention to the correct muscular development of your horse. If you're not sure that your horse is developing correctly, you can seek the advice of a veterinarian, physiotherapist, or qualified body worker.

And with the use of pole work, you can check in to make sure your horse is using the correct muscles and demonstrating correct movement patterns.

To move correctly, the horse needs good coordination between his hindquarters and forehand.

#### First, Let's Look at the Two Sources of Movement

**The forehand** consists of three active muscle chains: the trunk (responsible for lifting the breastbone); the upper neck; and the straight abdominal muscle. These three muscle chains work together to carry forward the movement and energy generated by the hindquarters. The forehand must be actively engaged in order to avoid damage to the legs or back.

#### POLE WORK FOR DRESSAGE RIDERS



The hindquarters consist of the croup muscles, the straight and transverse abdominal muscles, and the interior lumbar (loin) muscles. It's only possible for the horse to track up actively and carry weight correctly when his pelvis is able to rotate back and down.

The diaphragm binds these two central sources of movement together. Therefore, the horse must engage his body in a state of positive tension in order for him to be able to live a healthy and pain-free life.

#### 1.1 An Overview of the Benefits

- Improve the dorsal and ventral muscle chains
- Synchronize the forehand with the hindquarters
- Improve rhythm, suppleness, connection
- Develop concentration, coordination, and conditioning
- Activate the hind end
- Strengthen the exterior muscle loop of the hindquarters
- Strengthen the shoulder girdle and the pelvic girdle
- Lift the breastbone (thus lightening the forehand)
- Create deeper flexion in the joints of the hindlegs
- Build and increase engagement of the topline

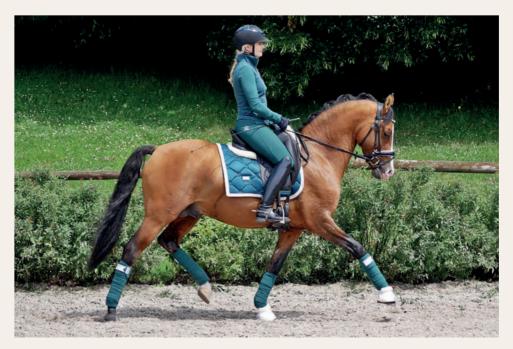


Work over ground poles improves abdominal muscle tone.

In this photo, activation of the hindquarters through ground pole work is clearly visible.



#### POLE WORK FOR DRESSAGE RIDERS



Here, the activation of the hindquarters has visibly allowed the forehand to lift.

- Improve straightness
- Improve thoroughness
- Improve both carrying power and "pushing power"
- Improve tempo changes within the gaits

Working over poles will only have positive effects when the horse is guided to move correctly.

➡ Working over ground poles is strenuous for the horse; therefore, you should limit your sessions to 15 minutes or less at a time.

#### 1.2 When Should I Avoid Working with Poles?

- After an injury, tendon damage, or when a horse is in rehabilitation after an operation, it's important to first consult with your veterinarian.
- When the horse has a physical block, it should first be treated fully by a chiropractor, osteopath, or physiotherapist.

#### **Solutions to Common Problems**

 You notice that your horse always performs differently depending on his direction of travel? Check out the section about asymmetry beginning on this page.

#### Your Horse Has Mastered This Exercise—What's Next?

- You can repeat this exercise for a longer period each time, until you're ready to move on to the next exercise.
- ➡ You can move on to Exercise 4.6 (p. 63).
- How about a workout for you? Saddle up your horse and try Exercise
  6.4 (p. 90). You're already familiar with the setup.

# **SIDE NOTE:** NATURALLY CROOKED OR NICE AND STRAIGHT?

A pole workout is, of course, not the only solution for a crooked horse. Pole work does help the horse fix his natural asymmetry, since his movement centers are required to work together. However, a horse that is truly ridden correctly won't need pole work to become straight. And at the same time, pole work executed incorrectly can cause a natural asymmetry to get worse—with consequences.

### In other words: Pole workouts can help a horse become straighter—as long as they are executed correctly.

When a horse drifts to the inside or outside on a circle, you might say that he's "falling onto his shoulder." That is true—however, you should be aware that a horse can only "fall onto his shoulder" when his movement centers (forehand and hindquarters) are not working correctly. They are either too passive or too tense. The origin of the problem will be found in instability in the outer musculature (shoulder and pelvic girdle).

Therefore, to correct a horse's natural asymmetry, the top priority should be to stabilize the shoulder girdle with support from the hindquarters. In order for a horse to travel straight and be able to bend correctly in both directions, he must actively be able to resist the centrifugal force of his chest and pelvis through the turn. To achieve this, he must track up with his hind legs. The rider can use her outside-rein to help the horse achieve stability.

#### So how exactly does pole work help the horse?

Pole work alone won't help, as explained above, but can support the horse by encouraging his hindquarters to become more active. In addition, it can help correct a horse whose natural stance is too narrow or too wide. Pole work helps to build muscles in the hindquarters. It also helps the forehand to engage with positive tension and lift the chest. But all this is no substitute for good, correct riding.

#### How can we support a horse's straightness during pole work?

We are aiming to strengthen the shoulder girdle and avoid a twisting of the chest, to ensure that the horse's footfalls and legs are on the correct axes. You can find more information about correct bend on page 16.

Asymmetry in the horse, whether it's naturally occurring or has developed during training, is a big topic. That could be a book in and of itself. I'll try to keep it short and simple here: when we talk about a horse with naturally occurring asymmetry, we refer to a hollow side and a stiff side.

On the hollow side, the lateral muscles are shortened. In this direction, the horse can bend more easily, but is difficult to correct with the inside aids. When it comes to longeing exercises, attempting to address this side directly is impractical, as we don't have outside aids to use (except for double longeing). In this direction, the horse wants to drift to the outside.

On the stiff side, the horse's muscles are longer and are more difficult to shorten. Here, it's useful to correct the horse with the inside aids, but he'll be more difficult to bend in this direction. In addition, the horse will want to fall to the inside and make his circle smaller in the stiffer direction.

I don't find it accurate to speak about a "good" or "bad" side. Both directions have their positive and negative attributes. We want to help our horses improve in both directions of travel, and I'll describe how to do so using the following exercises.

#### A) Pole Workouts for Horses Who Fall In

Does your horse always want to fall in and make a smaller circle on the longe line? Or, when ridden, does the horse barge through his inside shoulder?

#### POLE WORK FOR DRESSAGE RIDERS



The horse is obviously pulling to the outside; his axes have become misaligned, and he can no longer trot with good impulsion.

Here, you can see the horse remains unbalanced. Without a rider's (or longer's) aids, the horse finds it difficult to bend. His shoulder girdle and pelvic girdle will benefit from further training.





The horse is falling heavily onto his inside shoulder and looking to the outside.

Distracted by external stimuli, this horse is no longer concentrating on the poles. Here, it would be wise to refocus his attention. Most of the time, voice aids can be really useful here. Raising the poles won't help, as in this case it's not an issue of asymmetry.





# **9.** CANTER POLES ON BENDING LINES

#### POLE WORK FOR DRESSAGE RIDERS

Canter poles on bending lines are easier to ride than canter poles on straight lines. A basic requirement is a following seat in order to stay balanced when the horse's movement is still uneven in the beginning. The correct aids are essential, too. See *Canter Aids on Bending Lines* (p. 136).

Most rider-and-horse pairs have a preferred direction of canter. This goes back to the natural crookedness of horse and rider. Despite having a favored side, you should make sure to train both directions evenly to develop straightness and symmetry in musculature.

In addition, it's important to always aim at the center of the poles; otherwise, the distances will be too short or too long. The exercises in this chapter can be trained under saddle or on the longe line.

Forgo the half-seat or two-point position, if possible, since a correct framing of the horse is very important and not always possible in jumping seat position. For young horses, the half-seat position can be very helpful, but all workout exercises in this chapter are meant for older, well-trained horses.

Workouts on bending lines allow for the forehand and hind end to synchronize, and for the forehand to adjust to the hind end of the horse. As a prerequisite, it's especially important to have mastered bending lines in the walk and trot.

Along with difficulties that may arise from the exercises themselves, you may observe, among other things, a crookedness that makes itself apparent in a slightly travers-like canter, with the hind end moving slightly to the inside of the forehand. Don't try to correct the hind end; instead, adjust the forehand to the hind end, correcting the forehand to the inside so the hind end and forehand move in a straight line. This can be achieved by riding shoulder fore or shoulder-in. Often, this problem is more prevalent on the "hollow side" of your horse, or is caused by incorrect use of the outside rein. An exercise positioning your horse to the outside can be helpful in straightening your horse.

On the "non-hollow" side, the forehand may shift to the inside. The horse will canter too far in with both forehand and hind end. Here, too, it's not advisable to shift the hind end to the inside. To the contrary—always adjust the forehand to the hind end. Move the forehand to the outside. For more on this, see *The Correct Bend* (p. 13).

The pole workout can only begin after these difficulties have been solved without involving poles.



Here, the distance between the poles is too big. The horse has to dive over the poles. In order to regain balance, he transitions to cross canter. You can recognize this when looking at the hind legs.



Here, the horse is too close to the first pole. As a result, the following poles will also be approached incorrectly. This leads to tension in the horse and to a tense canter. The flow of the movement is interrupted.





If the distance is too short, one pair of legs may end up splitting. In addition, the risk of injury is raised, as the horse could step on the pole.

Here, you can see the clear separation of the front legs.



Since the distance to the first pole was too big, the horse had to dive over the pole. Therefore, the distances that follow in the rest of this line of poles will be incorrect.



Here, the ridden line is incorrect. The horse loses his balance and breaks to a trot to regain it.

### **SIDE NOTE:** CANTER AIDS ON BENDING LINES

#### Weight Aids:

On the bending line, the rider will always use the one-sided weight aid (inside seat bone).

#### Leg Aids:

The inside leg actively supports a forward canter and helps the forehand to freely canter uphill. The outside leg is passively positioned farther back for the canter depart, and can move back to its normal position while supporting the ridden line.

#### **Rein Aids:**

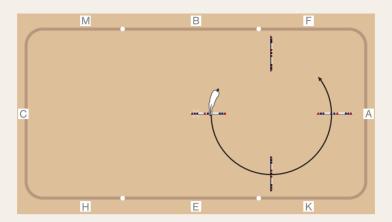
On a bending line, the inside rein is always the positioning rein (giving and taking). By staying constant, the outside rein supports the horse's movement on the correct lines.

To create a correct and even canter, the rider must sit in every canter stride toward the outside rein—that is, the rider's hips will be moved forward by the horse, shortening the distance between the hip and the outside hand of the rider. At the same time, the inside leg should support the forward movement, and the inside hand should give, allowing the horse to open his inside, move his shoulder forward and upward, and lengthen the time he is supporting himself on one leg. Review *Half-Halts and Full Halts* (p. 107).

#### 9.1 The Canter Square

Before you begin with the pole workout on the bending line, you can start in small steps. Position 4 poles, spaced evenly apart, on the second or third track of the 20-meter circle.

➡ You can use cavalletti instead of poles. But start on the lowest setting.



Set up your canter on the 20-meter circle. As soon as your horse is on the aids, ride your circle smaller so you go over the center of the poles. Count in your head in order to achieve an even tempo. For example: "1, 2, 3, jump." (At "jump," you should canter over the pole). As soon as your horse finds an even tempo and canters over the poles in a relaxed manner, end the exercise with extensive praise. Practice this exercise in both directions.

Just like the last few chapters, this exercise is geared more toward the rider's improved coordination than toward the horse developing musculature. Please remember this before you continue with the following exercises, which are more difficult. This exercise, even if it seems simple, needs to be fully mastered before you tackle more challenging exercises.

#### **Solutions to Common Problems**

#### "My horse falls in and the bending line gets smaller and smaller."

- Ride this exercise like a square. Your horse has shortened musculature, and is therefore crooked. Make sure to sit on the inside seat bone without turning the upper body to the inside.
- Other problems with your seat could be the cause. Remember, the contact on the inside rein has to be a give-and-take, never a constant contact.

#### "My horse falls to the outside and the circle gets bigger and bigger."

• Here, again, crookedness is likely the cause. The source could be the horse or the rider. Frame your horse clearly with a quiet, constant contact. While counting, ride straight on "1," turn on "2," go straight on "3," and then "jump" over the pole.



On the bending line, be aware of your shoulders; you need to keep your inside shoulder level with your outside shoulder to avoid folding at the hip.

#### Your Horse Has Mastered This Exercise—What's Next?

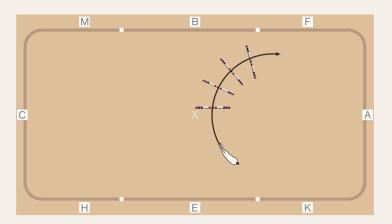
Make sure you and your horse both feel comfortable with this exercise in both directions. Then, I'd suggest you take a break before moving on to the next exercise.

#### 9.2 The Canter Quartet

Next, position the 4 poles in a row on the circle line (second track). Now the correct and even canter stride will be combined with the correct bend.

## Start by placing the poles about 20 feet (6 meters) apart on the circle line. This will be easier for some.

Set up your canter on the 20-meter circle. As soon as your horse is on the aids, ride your circle smaller so you go over the center of the poles. Count in your head in order to achieve an even tempo: "1, 2, 3, jump." (At "jump," you should canter over the pole.)



To achieve a correct bending line before, over, and after the poles, stay on a smaller circle until your horse canters fluidly and correctly over the poles and his rhythm stays the same before and after the poles. Praise your horse thoroughly, and allow for a walk break. Then continue in the other direction. You can build on this exercise by adding more poles.

With young horses, half seat can be helpful, but keep your horse in a good frame to avoid him speeding up over the poles, and to support his balance.



#### **Solutions to Common Problems**

#### "My horse always speeds up before and over the poles."

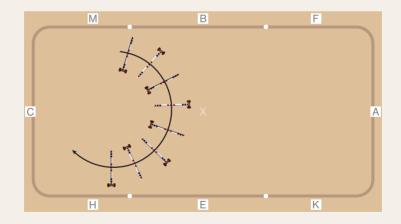
- Prepare your horse for the poles with half halts.
- Ride each canter stride as if it were the first one, and sit firmly toward the outside rein.

#### Your Horse Has Mastered This Exercise—What's Next?

 I recommend that you continue, after a break, with the next couple of exercises.

#### 9.3 Abs, Legs, Butt

Now we're getting serious, and the real workout begins! You're already familiar with this setup, but this time the whole exercise will be ridden in canter. Position 8 poles on the circle line. Raise 4 poles at the inside end and 4 poles at the outside end, so every other pole is raised on the right end and the rest are raised at the left end. Use the third track.



Avoid diving over the first pole. Choose your line correctly!

Repeat this exercise over a longer period of time before moving on to the next exercise. Focus on suppling the horse evenly in both directions.

# Which Exercises Should You Have Mastered Before Starting This Exercise?

- The previous exercises in this chapter.
- The exercises in chapters 4 and 8.

#### **Solutions to Common Problems**

Most of the problems that could occur have already been addressed in previous exercises and chapters.

#### Your Horse Has Mastered This Exercise—What's Next?

- I recommend you continue, after a break, with the next exercise, for suppling, or continue onward directly to a more difficult workout with Exercise 9.5 (p. 138).
- ➡ If Exercises 9.4 and 9.5 are too challenging, you can start chapter 10.

You can also raise every other pole on both sides.

