

## The Serpentine Exercise

## Tina Watkins

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Ah the simple serpentine: an exercise we have all used since we started riding. While we may think we have aced this exercise and can move on, it is worth ensuring it's done properly. When done properly, the serpentine exercise is one of the best workouts for the core, stabilizer and lateral flexor muscles.

There is just the issue of doing it properly. This exercise is not about just careening around loops; it is about shortening and elongating the sides of your horse and engaging the core muscles.

First, a refresher about the serpentine pattern: the rider begins on the short side of the arena and creates different sized loops traversing the length of the arena. The exercise gets more difficult with smaller loops. No matter the size of the loops, as the horse and rider cross the center line of the arena the horse should be straight. It sounds easy, right?

The challenge is to keep the horse in balance while engaging the horse's hind quarters through the turns. The easiest way for a horse to turn is to lean into the turn, falling to the inside with the shoulder and falling to the outside with the hip, essentially pivoting around the front end.

The rider is trying to "bend" the horse, but the moment the horse rolls to the inside like this, greater torque is placed on the joints in the horse's legs to find balance, while most of the bend is only in the neck. Thus, most of the benefit of the exercise is lost.

Picture a horse with two sets of airplane wings, with one set coming out of the shoulders and one set coming out of the hips. As the horse approaches the curved section in the serpentine, keep the airplane wings square with both sets of wings parallel to the ground.

In order to successfully navigate the curved section, the horse needs to engage the hind legs and hip flexors while rocking their weight back to make the movement of the horse feel slightly uphill.

Through the curve, the horse's forward motion will act as a force pushing the horse towards the outside of the curve (centripetal force). The horse's core muscles must engage to work against this force and follow the desired curved track. It takes a lot of strength to stay upright and not lean into the corner. Next time you are the passenger in a car going at speed around a turn, try and hold yourself upright without leaning – it's a great core workout!

In order for the horse to stay in balance through all of this, the airplane wings must remain parallel to the ground all the while. The inside of the horse's body contracts while the outside lengthens to create the bend. The contraction and elongation requires the core and stabilizer muscles to engage. The serpentine is a dynamic exercise that requires many actions and plenty of body control to execute properly!

Pay attention to how the exercise is ridden and performed – it can reveal weaknesses in training and strength of both horse and rider

Happy riding and good health!



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