

DRESSAGE TODAY

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EXTRA

Prepare to
Pirouette

Fighting Thrush

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Prepare to PIROUETTE

Part 1: Learn how to develop ultra collection and achieve the pirouette canter.

*By Shannon Dueck with Hilary Moore
Photos by Susan J. Stickle*

The six to eight strides of a beautifully performed canter pirouette can be one of the most elegant moments of an upper level test, but it can also be the most difficult, as the horse's forehand circles around the hind limbs. (He must do this at a distance



equal to the length of his body while he is slightly bent in the direction of travel). The key to training canter pirouettes is progressively developing the collection, bend and suppleness needed for the final product—a fluid 360-degree turn in canter. You need to begin your training much earlier than during the horse's advanced work. Before working on the pirouettes, it is essential that Second Level is mastered and you and your horse are well on the way to mastering Third Level. When ridden correctly, all of the lateral movements and required collection introduced at Second and Third Levels will develop the connection,

suppleness and balance of your horse—the prerequisites for properly training the pirouette. Once you confirm the Third Level work, you should be ready to train ultra collection, also known as the pirouette canter. This is more collected than collected canter and encourages the high level of engagement, lightness of the forehand and self-carriage required to perform the pirouette.

Test Exercise: To see if you are truly well on your way to mastering Third Level collection and suppleness and ready to work the pirouette canter, try the following exercise. It will show you if you have holes in your training

that need to be addressed. Although the exercise is not easy, if you are successful at using your half halts to help your horse complete it with some accuracy, impulsion and thoroughness, you are ready to start canter pirouette work. Try this exercise on both leads to ensure that you are developing your horse's athletic ability equally on both sides (see photos below):

1. At A, pick up the right lead, collected canter.
2. From K to E, shoulder-in right.
3. From E to X, half circle right, 8 to 10 meters.
4. As you approach X, prepare to half

Test Exercise

Shannon Dueck rides Sentimiento, a PRE stallion owned by Tamara Gerber of Wellington, Florida.



Ultra Collection on a 20-Meter Circle



Training the pirouette canter on the 20-meter circle is a straightforward way to introduce the pace since the circle already encourages the horse to step underneath himself.

circle left from X to B, 10 to 12 meters, in counter canter.

5. From B to M, renvers in counter canter (in right lead canter).

6. From M to H, straighten your horse but maintain the counter canter and proceed from H to F in medium or extended canter.

You have passed this test once you are able to execute each aspect of the exercise—the shoulder-in, half circle, counter canter, renvers and medium/extended canter—as well as if you were doing each on its own. If you are not able to do everything in a series, work on a few of pieces at a time until you are comfortable with the entire exercise.

I approach training the pirouette from two different directions: The first is developing ultra collection and the second is the working (or big) pirouette. Over time, these directions come

together into a finished pirouette. Here, in Part 1, we will focus on the ultra collection or “pirouette canter.”

Developing Ultra Collection

Ultra collection is tested in Fourth Level, Test 1, because you cannot turn a pirouette without mastering the pirouette canter. When done correctly, this exercise will improve your horse’s strength over the back and hind legs, his balance and his longitudinal suppleness.

It is important to note that most horses get slow behind as their riders bring them into more collection. So the rider needs to remind the horse to keep quick behind. “Remind” is a key word in the last sentence. Try very hard not to use more and more leg to keep your horse going in this exercise. Expect your horse to keep his hind legs engaged and remind him to keep working.

Ultra collection exercise on the 20-meter circle:

1. Develop a nicely forward collected canter on the right lead.
 2. At E, circle right 20 meters, maintaining the same canter.
 3. Your horse should be quite straight in the spine; slight bend and flexion to the inside is all you want.
 4. Bring the horse more and more collected in the canter while trying to maintain the purity of the canter rhythm. Use half halts to correctly achieve this:
- Apply enough pressure to your seat and rein aids to gently rebalance your horse into a more collected canter.
 - Your outside rein is an incredibly important part of this half-halt, and when it is done correctly, you will feel your outside elbow and rein bring the outside hind leg into more engage-

Ultra Collection on a Straight Line



Once you are comfortable with ultra collection on a circle, you are ready to try it on a straight line. This will test that your horse is able to develop the pirouette canter without avoiding hind-end engagement by throwing his haunches in.

ment. (In fact, many of my students have said they really start to understand what an outside rein does when they are successful at ultra collection in the canter).

- Don't release the half halt until you feel the horse change his balance more onto the hind leg, and soften your half halt only a little at first.
- When you can soften your half halt and your horse stays balanced underneath you in a more collected canter, you can quietly ride more forward and take the pressure off.

5. Repeat this exercise on the left canter lead.

This exercise is a relatively straightforward way to introduce ultra collection since the circle already encourages the horse to step under himself.

Ultra collection exercise on a straight line: After ultra collection

is easy on a circle, you are ready to progress to straight lines. Ultra collection must be trained on the straight line because it tests that your horse is able to develop the pirouette canter without avoiding the engagement required by throwing his haunches in.

1. Develop a nicely forward collected canter on the right lead.
2. Ride down the quarterline, maintaining the same canter.
3. Repeat the same aids used for ultra collection on the 20-meter circle while maintaining the straight line of travel down the quarterline.
4. When this movement is done properly, your horse's haunches will not fall inward. If they do, ride straight and reapply the aids for ultra collection.
5. Repeat this exercise on the left canter lead.

Combined with the ultra collec-

tion on the circle, this exercise on the straight line will improve your horse's strength in his back and hind legs as well as develop suppleness and lateral balance. It will also put you well on your way to developing proper canter pirouettes. When you can easily go in and out of ultra collection on a straight line, train these variations:

Shoulder-in/shoulder-fore exercise on a straight line in pirouette canter:

This exercise tests that the horse is not trying to avoid engagement. When done properly it makes ultra collection easy to do straight. Additionally, this is an extremely important part of your pirouette training because to ride a finished small pirouette you must be able to ride in shoulder-fore for a stride or two before beginning the pirouette.

1. Develop a nicely forward collected canter on the right lead.

Shoulder-In/ Shoulder-Fore



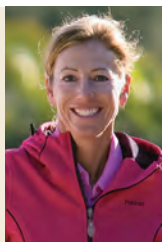
Pirouette Canter into a Corner



Here, Shannon and Sentimiento perform ultra collection in shoulder-fore (pictured left) and into a corner (pictured right). These are both helpful exercises for strengthening the horse's back and hind legs—key elements in preparing the pirouette.

Shannon Dueck

represented Canada at the 1999 Pan American Games (individual silver medal), the 2002 World Championships, the 2003 World Cup Final and the Open European Championships aboard her self-trained horse Korona. She competed her self-trained mare Ayscha at international Grand Prix. In addition to being an FEI-level trainer and international competitor, she holds a master's degree in equine nutrition and physiology, and served on the faculty of Lakeland College, Olds College and Johnson & Wales University. She lives and trains year-round in Loxahatchee, Florida (dueckdressage.com).



2. Ride down the quarterline, maintaining the same canter (you can also practice this exercise on the centerline).

3. Once you are straight on the quarterline, ride into shoulder-fore. Try not to deviate from the line as you position your horse.

4. Ask for ultra collection while continuing down the quarterline.

5. When the movement is done properly, your horse's haunches will not slide inward. If they do, return to shoulder-fore in a more active canter and ask for ultra collection again.

6. Repeat this exercise on the left canter lead.

Pirouette canter into a corner:

1. Develop a forward-thinking, collected canter on the right lead.

2. In the corner, between C and M, ride six to eight strides of ultra collection.

3. At M, ride forward again, straight down the track (make sure the shoulders come first around the corner, so

the haunches do not lead).

All of these exercises that train ultra collection should be ridden almost every day you ride in the ring. Do them for just short periods of time, as they are very demanding strength-training exercises and the horse's muscles need time to recover. Ride in ultra collection for just a few strides and then allow the horse to go forward. After a few repetitions, walk on a long rein.

On a day that is more focused on training ultra collection, do a few sets with short rest periods in between. Make sure that at the end of your sets the horse is well stretched in a forward, active trot or canter. The next day should be an easier work day or a stretch day to allow the muscles of the back and hind legs to recover. 🐾

Read Part 2 at dressagetoday.com/instruction/perfect-pirouettes-shannon-dueck

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Fighting Thrush

Causes, treatment and prevention

By Greg Staller, DVM, Diplomate ACVS

Thrush is the horseman's term for infiltration of the horse's sole and frog tissue by bacteria and fungi that are present in the his everyday environment. The presence of thrush in a horse's foot represents a management issue. If thrush is present, it is readily apparent by inspection of the bottom of the horse's foot.

Typically, thrush is characterized by a foul, rotten odor from the bottom of the foot, along with dark brown to black discoloration and moist softening of the frog and horn tissue generally centered around the sulci of the frog and along the white line.



If thrush is present, it is readily apparent by inspection of the bottom of the horse's foot.

foot, from the center to the perimeter, consists of the central sulcus of the frog, which is a narrow groove of variable depth that starts between the heel bulbs and runs toward the apex (point) of the frog (see illustration on p. 11). Moving outward from there is the frog itself. On each side of the triangular-shaped frog are the collateral sulci. These are grooves of variable depth that separate the sole and heel quarters from the frog. The collateral sulci are deeper toward the heel bulbs and become shallower toward the point (apex) of the frog. Moving farther outward toward the toe of the foot is the sole. Toward the heel is the heel quarter and heel buttress. The perimeter of the foot is bounded by the hoof capsule. The hoof capsule and sole are joined at the white line, which is the actual junction of the sole and hoof wall at solar surface of the foot. The sole and frog tis-

sue is made of keratinized or cornified skin tissue (epidermis), which, like the human nail is not sensitive or living, but is produced by living tissue deeper in the foot and functions as a protective barrier to keep this deeper tissue safe from the environment.

Now for the physics: The average horse used for dressage weighs between 1,000 and 1,250 pounds. This weight is supported by the four feet, each of which is roughly 6 inches in diameter. Although horse feet are not really circular, their shape is roughly circular, so a good estimate of the area of the bottom of the average dressage horse's foot is approximately 28 square inches. Approximately 60 percent of the horse's weight is borne by the front feet, thus 40 percent by the hind feet. The pressure under the front feet of the horse is roughly 14 pounds per square inch. The pressure under the hind feet is roughly 10 pounds per square inch. This is if the horse is bearing weight equally at all times, which we know is not the case, so these figures are the minimum pressure exerted upon the ground by the foot. This degree of pressure is enough to prevent air and light from entering the space under the foot when the horse is standing. A horse's foot is slightly concave, or cup-shaped, so that more weight is borne at the perimeter, along the walls.

When the horse bears weight, material under the foot is largely trapped by this concave shape. Any material that is under the foot that comes under this pressure will be forced upward into the sulci of the frog and the cracks and crevices of the sole of the foot. In a stall or in the paddock, the material under the foot is generally a mixture of bedding, dirt, manure and urine.

Dressage horses, in particular, may

To really understand thrush, a short review of the anatomy of the solar surface of the equine foot and some physics is in order. You can skip this section if this sort of detail bores you, but I like to break things down into their smallest bits. This helps you think through and develop prevention and treatment strategies that are more applicable to individual situations.

The solar surface of the horse's

spend more time in their stalls than horses of other disciplines and may therefore have more manure and urine underfoot at any one time than other horses. The bottom line is that the dark, high-pressure, anaerobic (without oxygen) environment is perfect for producing bacterial and fungal invasion of the frog and solar tissue.

A regular and frequent cleaning regimen of the horse's stall and environment, as well as the feet themselves, is key to preventing thrush. A hoof pick is necessary, but a key tool in preventing thrush is a sturdy wire brush, the kind that is sold in hardware stores, the kind favored by painters or welders. The wire scratch is used to remove sole and frog horn and debris after the hoof pick is used and more thoroughly cleans the bottom of the foot than just the hoof pick or a softer brush. Daily use of antiseptic medications that are formulated to kill fungi and bacteria in the foot is also key to preventing the development of thrush.

It has been observed that thrush is more common in the hind feet. There may be a few factors contributing to this. The most important is that horses eliminate (manure and urine) from the back end and the hind feet are more likely to be standing in this material than are the front feet, particularly in a stall situation.

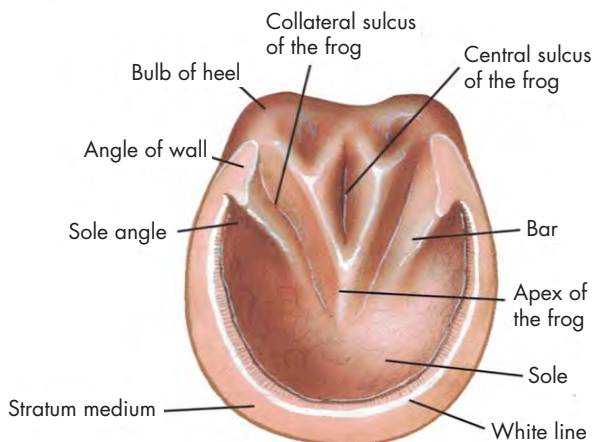
Thrush is generally confined to the nonliving or insensitive parts of the foot. Therefore, there is generally no pain or inflammation associated with the condition, and there is generally no reason to change a horse's exercise regimen because he has thrush in one or more feet. However, if not noticed and not treated or managed, the bacteria and fungi can extend through the horny tissue into the deeper, sensitive area of the foot, leading to infection, pain and lameness. This

infection can even extend deeper into the limb, resulting in serious cellulitis.

Treatment of thrush is based on a few key efforts. First is to understand and correct the particular environmental conditions that have led to the development of thrush. These may be a combination of stall-cleaning regimens, the horse's elimination habits, bedding choices and even hoof conformation. For instance, a horse with deep frog sulci who drinks a lot and therefore urinates a lot and gets little turnout is a candidate for the development of thrush.

Second, the infested frog and sole tissue should be carefully and judiciously pared and scraped away. This reduces the volume of diseased tissue and numbers of bacteria and fungi. If the thrush is deep, this is something you may want your farrier or veterinarian to do.

Lastly, the sole, frog and frog sulci should be treated with hoof antiseptics regularly to dry the tissue and environment and kill bacteria and fungi that cause thrush. These antiseptics are usually liquids that contain strong iodine, formaldehyde or mineral salts



Illustrated Atlas of Clinical Equine Anatomy and Common Disorders of the Horse

The sole of a trimmed foot

(copper sulfate most commonly). They are usually squirted or sprayed onto the cleaned sole of the foot every day to every other day. For more serious cases of thrush, there are also products that are soaks, containing chlorine, that are useful to treating thrush. The chlorine in the soaking solution turns to chlorine gas that infiltrates deep into the cracks and crevices of the foot and results in more disinfection than material applied to the surface.

In summary, thrush is a hoof hygiene issue that can be prevented with regular environmental and hoof maintenance. Treatment centers on removal of environmental conditions contributing to it and providing medications that kill bacteria and fungi and foster a healthy, cleaner environment under the foot. 🐾

Greg Staller, DVM, received his doctor of veterinary medicine degree from the University of California at Davis in 1987. With primary interests in surgery, lameness diagnosis and treatment, ultrasonography, ophthalmology and internal medicine, he is a Diplomate of the American College of Veterinary Surgeons and is on the board of directors of the Northeastern Association of Equine Practitioners. Married to FEI dressage rider Catherine Haddad, he is the founder and owner of Running 'S' Equine in Califon, New Jersey, and provides sports-medicine services in Wellington, Florida, and Aiken, South Carolina, during the winter season.



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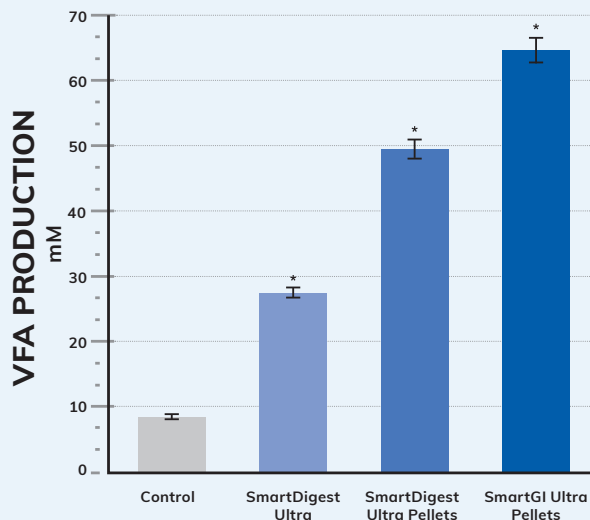
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