

"BAD HORSE" STORIES

There's been a proliferation of articles recently, in all sorts of publications, discussing "how to slow down the rushing horse;" "how to ride the stumble out of your horse;" "how to make your horse go forward;" "how to" this and "how to" that. As aforementioned, some of these negative and unwanted behaviors may actually be due to something as simple as a poorly fitting saddle, which impacts the reflex points and causes simple, instinctive reactions, rather than conscious behaviors. Because many of these articles seem to reason that bad behavior is a result of rider error, they attempt to address corrections by either offering solutions to change rider behavior, or—more drastically—calling in a vet to administer pharmaceuticals to address the issues. Nowhere is saddle fit, or possible genetic causes considered, so let's consider those factors.

There are absolutely valid psychosomatic reasons behind some of these issues, or actual illnesses causing these kinds of behaviors (or even lameness). But before resorting to expensive veterinary or neuroscientific treatments, try a simple diagnostic evaluation of your saddle fit—using a qualified saddle fitter who understands equine biomechanics and anatomy and the ramifications for your horse if the saddle doesn't fit properly. Then, if issues like the reluctance to move forward or stumbling still occur, speak to someone who can offer insight either into the breeding history of the horse (which includes the determination of possible genetic factors playing a role), or move on to the veterinary diagnoses.

SADDLE ANATOMY

If the saddle puts pressure on the reflex points along the spine because of a too-narrow gullet channel, or because it twists during movement because of natural asymmetry, the horse will reflexively lower its back to escape the pressure or pain. The goal to have the horse engage its back or bring it up during riding is unachievable. The forward impulse and momentum is lost, the horse exhibits defensive behavior, or perhaps not going on the bit, and the rider gets out of balance. This results in a frustrating experience for both horse and rider. The horse would like to respond to the aids the rider gives him, but the pressure on his reflex points inhibits his ability to do so. Think about your knee reflex: Even if the doctor tells you to try and refrain from kicking him when he taps your patellar tendon, there's nothing you can consciously do to avoid it.

So it would make sense that a saddle that consistently puts pressure on the horse's reflex points would be frustrating and eventually even damaging to the horse. Let's say you give your horse the signal to move forward. However, if the tree angle is too wide, or the tree width is too narrow, and

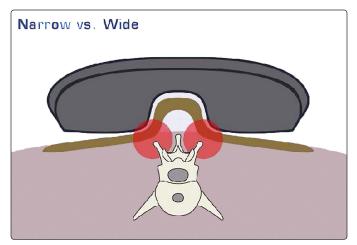
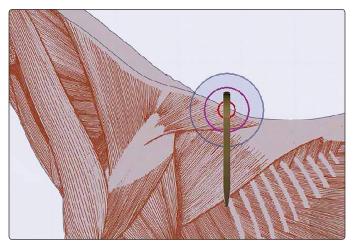


Illustration demonstrating the excessive pressure on the spine from a saddle with a too narrow gullet channel. Source: Schleese Saddlery.



A saddle that has a gullet plate too narrow for its horse -results in a pinching effect of the withers which can be quite painful and cause negative reflexes resulting in defensive behaviour or an unwillingness to move forward. Source: Schleese Saddlery



Horse reacting to being saddled (photo courtesy of Karen Loshbaugh, CSE).

the saddletree is putting too much pressure on the muscles enervated by Cranial Nerve 11, then the horse cannot really comply. The reason for this is that the saddle hits a reflex point that hinders the ability to move. The actual, instinctual reaction at this point is dropping the back, locking the shoulder, and rotating the pelvis (just like when the stallion bites the mare at this exact point during breeding!). Despite its best intentions, the horse instinctively will not, and more importantly, cannot move forward. He experiences the inner battle of wanting to obey his rider ("let's go forward") and his instincts ("stay still!"). A losing proposition for the horse—and possibly physical and psychological pain for the horse, as the rider thinks that this immobility is simply stubbornness and starts using spurs and whip. Consider trying to drive your car briskly away, but your handbrake is still on. Tires will squeal, you can move only haltingly, and smoke is generated from burning of the brake pads. That's what your horse goes through, and what it feels like.

THE GENETIC BASIS FOR RELUCTANCE TO MOVE FORWARD AND STUMBLING

Hyperkalemic Periodic Paralysis (HYPP) occurs as a hereditary muscle disorder in quarter horses, or Polysaccharide Storage Myopathy (PSSM) occurs in many other breeds—both can cause "tying up" and seeming reluctance to move, as well as weakness in the hindquarters that can manifest in stumbling.



HYPP affects both males and females in the population, and is generally noticed more as tying up, with weaknesses in the hindquarters, rather than not wanting to move forward. HYPP-affected horses can appear totally normal when not undergoing an episode so it is often not possible to just look at a horse and determine whether he has this condition. The expression of this condition can also be influenced by the environment, management, and nutrition. HYPP is also commonly called the "Impressive Syndrome" since the origin of this syndrome can be traced back to a single quarter horse stallion named Impressive from the late 1960s. Check to see whether he is in the bloodline—Quarter horses, Appaloosas, and Paints bred for extreme muscularity may all be affected with HYPP. The problem here is that since the clinical manifestations can be controlled with proper diet and management, breeders will continue to propagate this mutation since the results allow wins in the show ring. HYPP can however, on occasion, end in death, as cardiac arrest or asphyxiation from laryngeal collapse can occur as part of this genetically influenced disease.

PSSM on the other hand is not lethal and is not restricted to Quarter horses or the related breeds. Typical signs of PSSM include stiffness at the rump, sweating, pain, and reluctance to move. Episodes are usually induced by a short period of exercise following a longer layup of several days. However, horses with inherited PSSM can be managed fairly well with appropriate exercise and feeding regimens to minimize the episodes and possible consequent muscle damage - even at high levels of competition. PSSM is very widespread in the equine population—the genetic mutation occurred somewhere between 1200 and 1500 years ago! If triggers are absent from the environment, horses will carry this mutation without ever experiencing an episode. The hereditary nature was not recognized until recently and therefore no steps had been taken to avoid breeding horses with this disorder. Like HYPP, there are DNA tests available to determine its existence—if all other logical explanations and treatments fail. Obviously, these potential causes need to be eliminated as well.

LISTEN TO YOUR HORSE

Let's listen a little more to what the horse is trying to tell us—horses can't speak, but their behavior speaks volumes! Sometimes due diligence is necessary to determine the actual cause—be it poor saddle fit, neurological problems, or genetic disorders.

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