Most riders would be distressed to learn that their saddle is causing their horse pain.

PHOTO: ISTOCK/SOMOGYVARI

Understanding the Damage
Caused by Poor Saddle Fit

By Jochen Schleese, CMS, CSFT, CSE

CASE HISTORY:

I have a client's horse that spent ten months in training with a poorly fitting saddle. Since she bought him, the horse has had chiropractic, massage work, and also a new properly fitting saddle. Although his back is better now he still seems to have a bit of a "hangover" from nearly a year in a poorly fitting saddle. He actually bucked me off just last week!

DIAGNOSIS:

This is unfortunately a rather common occurrence. The truth is, had this horse's former owner invested in a properly fitted, fully adjustable saddle, much of the effort, expense, and ongoing issues could absolutely have been avoided. This is the basis of my book *Suffering in Silence: The Saddle Fit Link to Physical and Psychological Trauma in Horses* (Trafalgar Books, 2014).

The horse's "hangover" is just like the recurring pain that we can experience after an injury that takes some time to heal, such as shin splints; the aftereffects come back to haunt you even after you have "healed."

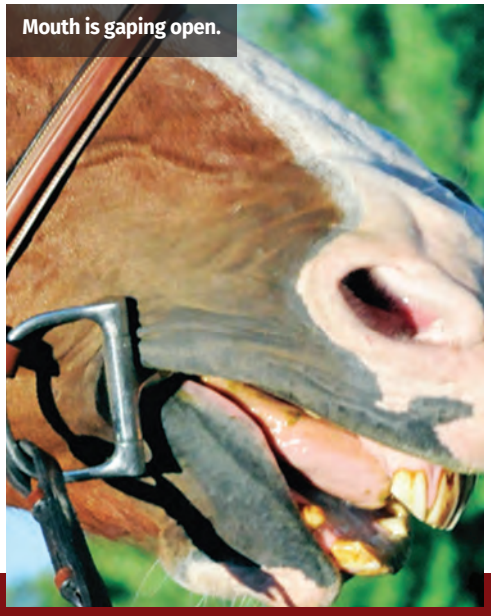
The fact that this horse has bucked you off makes me wonder whether the saddle is still too long for his saddle support area (past the 18th thoracic vertebra) and if it's actually hitting the "bucking reflex." Many saddle fitters do not really take saddle length into consideration when fitting the saddle. A recent ad for an innovative girth that is supposed to allow freedom of movement at the shoulder illustrates the saddle actually placed too far back and out of the saddle support area.

White hairs indicating damage to the left side of the withers area due to a gullet plate that was too tight and incorrectly fitted.

Muscle atrophy at the loin area caused by an incorrectly fitted gullet plate which seated the rider too far back creating excessive pressure in the loin area.

PHOTOS COURTESY OF SCHLEESE SADDLERY

The gullet plate is parallel with the shoulder blade and wide enough for the shoulder to pass freely underneath.



PHOTOS COURTESY OF SCHLEESE SADDLERY

These horses are showing signs of either discomfort or pain.

The physical signs of saddle fit trauma are more easily apparent than the psychological signs. Indications that your horse is in pain include head tossing, bucking, stumbling, tongue issues, rearing, and resistance. Visual signs of poor saddle fit include white hair, dry spots, and muscle atrophy.

Each of these symptoms can be traced back to a saddle that was not properly fitted to the horse – either the gullet channel was too narrow, the tree points and gullet plate were not roomy enough at the withers, or the angle of the tree at the gullet did not match the shoulder angle and allow it to pass through clearly (like a sliding door). Spinal issues, nerve damage, or cartilage injuries may take months or years to appear and all are consequences of poorly fitting saddles. The horse may also be "girthy," anticipating that the saddle will hurt once the girth is tightened.

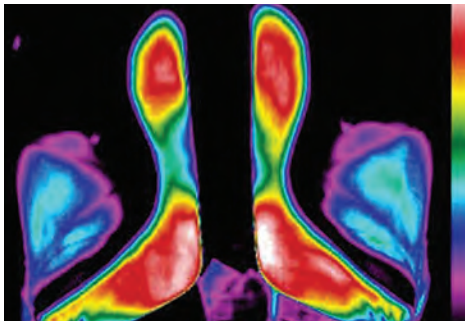
Most people love their horses and would be distressed to learn that their saddles are causing these issues. Horses do not consciously behave badly and really want nothing more than to be protected by the alpha or in this case, their rider. Horses value this bond between themselves and their riders, and don't understand why the relationship is impacted by the saddle which causes pain. As a rider, you intuitively know when something is wrong in your relationship because you see it in your horse's eyes, or you feel it when he doesn't nicker and come to you freely when called. He is anticipating pain. When the horse expresses himself to this extreme, you know he has already suffered for many days.

Why Is Saddle Fitting So Important?

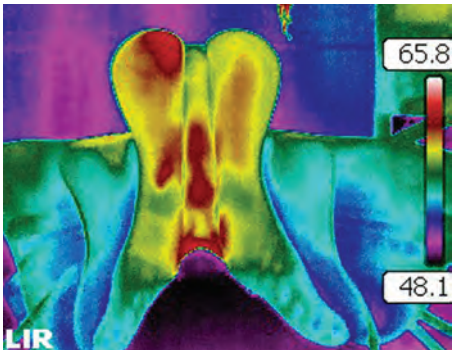
Every horse is an individual. This seems like a fairly obvious statement; however, that logic often fails when we think about fitting our equipment to our horses. We must consider the individual horse's specific conformation and fit the saddle appropriately. The saddle fitter should observe the horse both standing and in motion to determine the fit.

All horses have the same bones and muscles, but the saddle fitter's job is to recognize and adjust for the difference in the way each horse develops and grows.

Every horse has a grouping of muscles

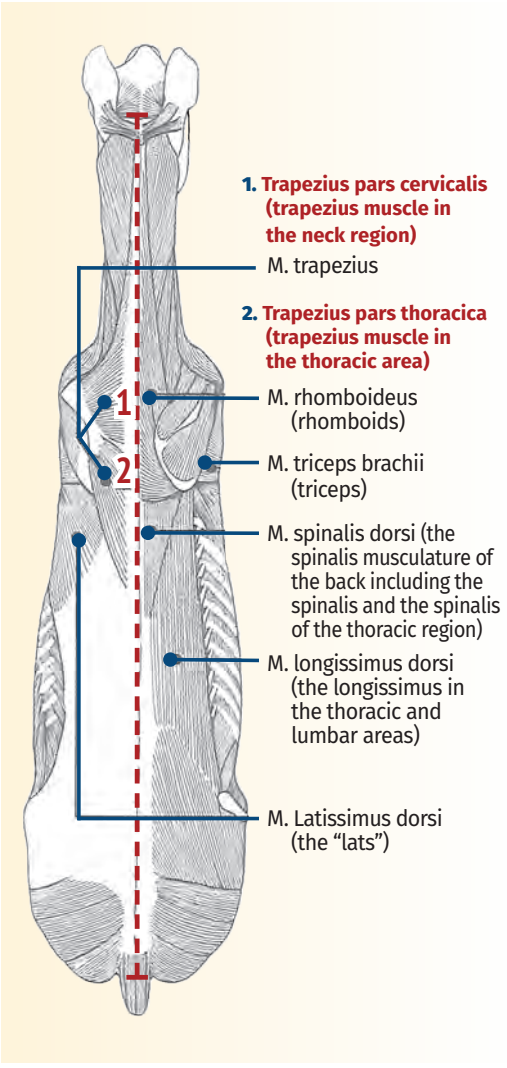


Red areas showing a typical bridging pattern where excessive pressure is evident at the front and back areas of the saddle, while little to no weight-bearing surface is showing in the middle region of the saddle's panel.



Red areas indicate excessive pressure and clearly illustrate an ill-fitting saddle that is not well balanced and is actually sitting on the horse's spine.

IMAGES COURTESY OF SCHLEESE SADDLERY

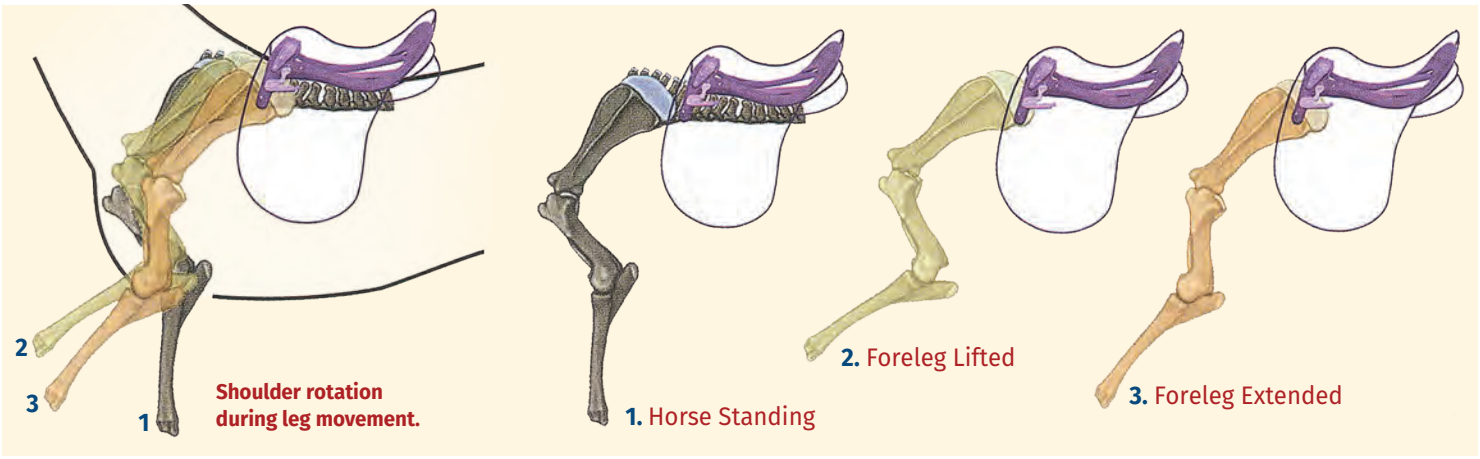


in the withers that if pinched by an ill-fitting saddle can cause the horse to grind its teeth, toss its head, invert its back, and stop. In fact, pinching in this area is the most common problem in saddle fitting. Since horses do not have a collarbone and the ribcage is slung on the shoulders with a hammock of muscles and ligaments, this area also changes in width and strength as a horse's training and fitness changes.

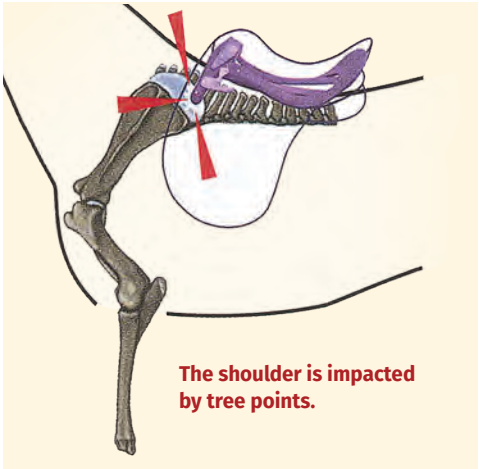
Every horse has a longissimus dorsi muscle that stretches from the base of the neck across the back and attaches at the sacrum and pelvis. Due to differences in the curvature of the spine from one horse to another, it must be possible to change the flocking to fit each individual horse.

It is also very common the find a saddle that "bridges" or is hollow across the horse's back. This means that the panel of the saddle touches in the back and the front, while forming a bridge across the longissimus dorsi. This puts huge pressure in the back and the front, and causes a great deal of pain in the horse's back while discouraging the horse from lifting its back into a round frame.

IMAGES COURTESY OF SCHLEESE SADDLERY



Shoulder-blade rotation and movement during different foreleg motion. It is obvious that a saddle with an incorrectly adjusted tree angle, incorrect tree width, or when its tree points are angled forward, as in this illustration, can cause potentially serious issues at the shoulder.



Saddle Fit from the Horse's Point of View

Although all horses have the same skeletal and muscular structures, each develops and grows differently – perhaps due to food, training, general health, shoes, and so on. These external influences will have a bearing on the final outcome, and can actually influence saddle fit from one day to the next.

Saddle pinching in the withers area is one of the most common problems. This is the area where the stallion bites the mare to immobilize her during mating, so if the tree is too tight here, the result will be an unwillingness to move forward. This is instinctual, but it is also the result of simple discomfort. In addition, most wooden English spring trees have forward facing tree points, which, if the saddle is placed too far forward, can continuously bang on the shoulder blades causing pain at best, and bone chips at worst.

In order to make the horse and rider as effective and comfortable as possible, there must be a communicator or interface between them: the saddle. Although we cannot help causing a degree of pressure when we put a foreign object onto a horse's back, we should try to keep unbalanced pressure points to a minimum.

Today's sport horses are bred differently from those of 50 years ago. Their backs are generally much shorter. This leads to problems when saddles are too long in the panel area and put pressure on the kidneys causing bucking, stumbling, or tripping, and transition errors from one gait to the next.

When the saddle bridges, the longissimus dorsi muscle tightens and therefore the back drops, the head comes up and the pelvis rotates up. Now we have an "inverted" horse that is stiff, disengaged, and unhappy.

A seemingly easy solution is to try to fix poor saddle fit by using pads of various types. In all cases, however, a correctly fitting saddle should not need any pad whatsoever. Pads should be of thin, washable cotton and used only to protect the leather from the horse's sweat. Shims can be used as a temporary measure until the saddle can be properly fitted. If it is necessary to use a saddle on more than one horse, have it fitted to the largest horse and then use pads to make it work for the others *if and only if the saddle is too wide*. If the saddle is too small (i.e., too narrow over the withers) adding pads is like wearing extra socks in shoes that are already too small.

< **An inverted horse.**

V **A crooked rider.**

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A recent discussion has arisen about fitting saddles crookedly on unevenly muscled horses. Because most horses are "left-handed" most will be unevenly muscled, and often this cannot be changed to any significant degree by training. It is what it is, and therefore the saddle should be fitted accordingly. If the saddle is fitted completely straight, the more heavily muscled left shoulder will push the saddle over to the right. The rider will compensate by leaning to the left in an effort to sit straight. The saddle will end up in the wrong position, the rider will be in the wrong position, and absolutely nothing will change in the left-handedness of the horse. On the other hand, if the saddle is fitted to accommodate this inherent left-sided muscling and sits straight when the horse begins to move, the rider can actually do exercises to try and muscle up the right side (instead of having to concentrate on not falling off).

The rider is a key consideration when purchasing a saddle. If the rider is not comfortable in the saddle or the saddle is not right for the rider, it doesn't matter how well the saddle fits the horse because the rider will be fighting the saddle. This discomfort will translate through to the horse, thus inhibiting performance.

Saddle fit is not smoke and mirrors; rather, it is a diagnostic science based on facts. Although people with some knowledge may have an opinion, professional saddle fitters are specifically trained to analyze saddle fit and recommend solutions. Research and facts are available to support these statements. It is no longer acceptable to simply say, "I think it fits, my horse is moving okay. My saddle is custom and it should fit for the rest of my horse's life."

Saddle fit is crucial to the well-being of the horse and to the comfort of the rider, and should be evaluated once a year at minimum. If the horse has been performing in spite of a poorly fitting saddle, think what he could be giving you if the saddle were actually fitted correctly.

Happy horse = Happy rider.

Jochen Schleese, Certified Master Saddler, Equine Ergonomist, is a leader in the concept of saddle fit, and teaches his Saddlefit 4 Life® philosophy worldwide. He is also the author of Suffering in Silence, The Saddle-Fit Link to Physical and Psychological Trauma in Horses.

> www.schleese.com
> www.saddlefit4life.com