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YOUCH!

My Back is Killing Me!

What your horse is trying to tell you.

by Jochen Schleese, CMS, CSFT, CSE

Probably at some point in our lives most of us – riders or not – have suffered from backaches, charley horses, sciatica, or even perhaps more drastically – slipped discs, herniated discs, or pinched vertebral nerves. You know how painful any of these symptoms can be, and you know how they can be treated: over-the-counter or stronger drugs and painkillers, massage, chiropractic adjustments or even surgery.

But what about your horses? Do they suffer from back pain or injuries that result in symptomatic lameness or other "behavioral manifestations?" Many recent articles seem to prefer to attribute some of these consequential behavioral issues to "stubbornness," "resistance," or even simply "bad behavior," but the solution is often right before our eyes without the need for veterinary or chiropractic care.

If your horse had a sore back that resulted in some of these symptomatic behaviors, would you be able to tell? A recent veterinary study, published last fall in *BMC Veterinary Research*, suggests that you might not. Caretakers estimated that between four and 22 percent of horses at the various equestrian centers tested had back pain; in reality this number was between 37-88 percent! That's a significant number. The highest percentages actually came from those stables where the people assumed their horses were mostly fine.

The problem lies in learning how to interpret what your horse is trying to tell you. Imagine how confusing mixed messages are for your horse. On one hand you love and care for his every need. On the other, your aids may be confusing as you shift your weight trying to maintain correct balance and "proper" position, while protecting yourself from pain. The expensive "custom" equipment on your horse's back may inhibit his freedom of movement, causing pain with every step. Poor riding practices can also lead to vertebral or musculoskeletal

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Behavioral problems that can be caused by ill-fitting saddles include:

- Gait abnormalities such as 4-beat canter/ not tracking up
- Toe dragging, stumbling
- Head nodding
- Tail swishing
- 'girthiness'
- Hollow back
- Leg mover
- Resistance ('stubbornness')
- Lacking engagement – can't bring the back up
- Bucking
- Bad attitude

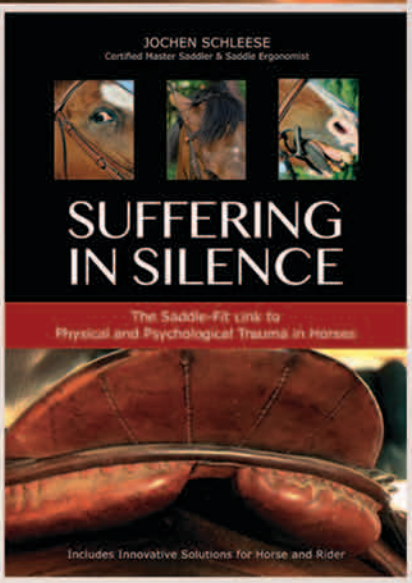
Of a greater concern are issues which, if unresolved can lead to health concerns and permanent damage:

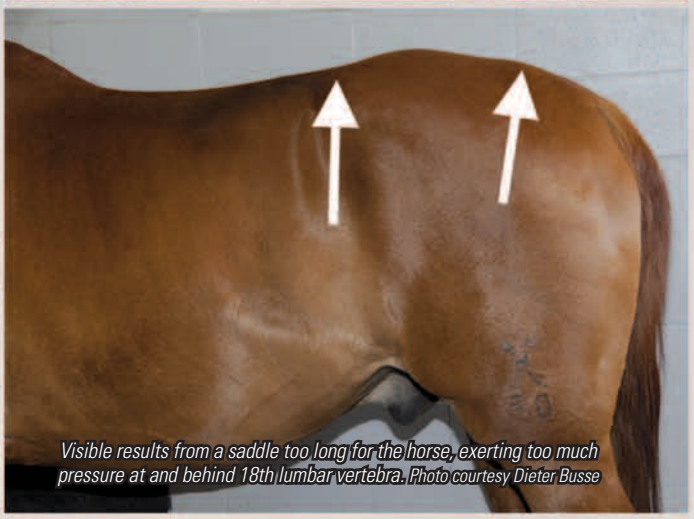
- Sore, sensitive back
- Lameness (usually on the hind leg opposite to the larger shoulder)
- Muscle atrophy
- Chipped scapular cartilage
- White hairs, sores in the wither area, bumps
- Dip in front of the sacroiliac (SI) joint

Saddle shifting to the right lying on the vertebrae (spine) on the left hind. Saddle has twisted and gullet is too narrow. Photo courtesy Dieter Busse

Jochen Schleese teaching Equine Ergonomics to professionals. Photo courtesy Schleese

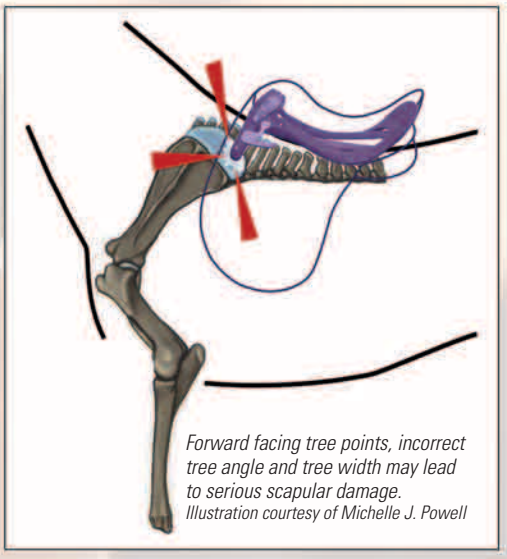
Forward facing Gullet Plate Pinches Withers; may cause chipping of scapular cartilage. Photo courtesy Dieter Busse



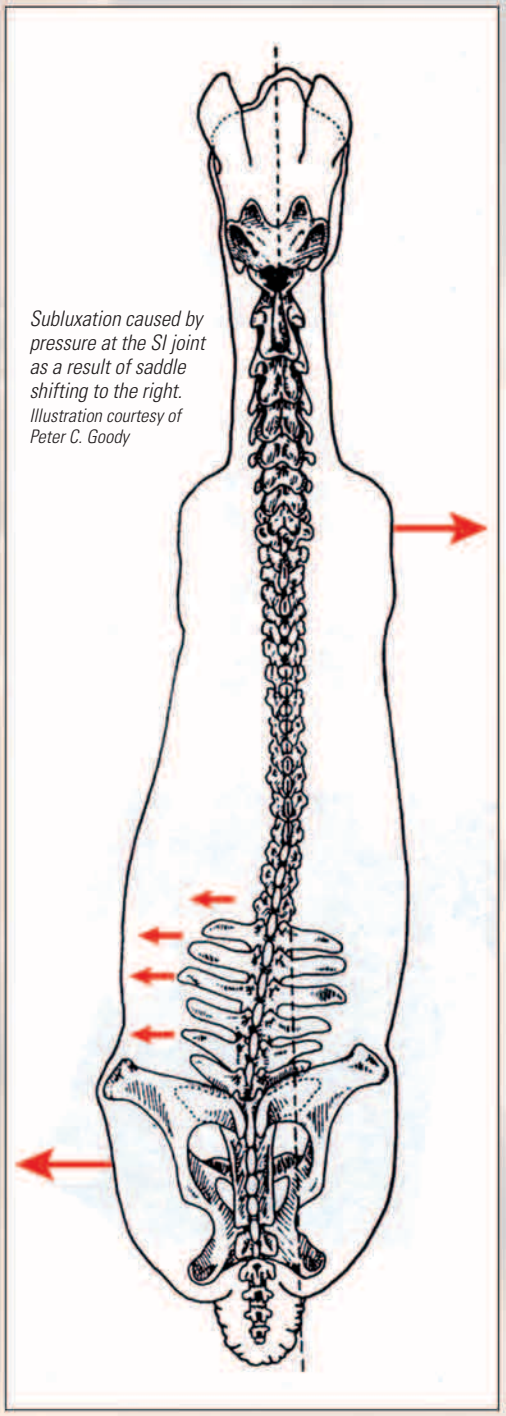


Visible results from a saddle too long for the horse, exerting too much pressure at and behind 18th lumbar vertebra. Photo courtesy Dieter Busse

Jochen Schleese uses HorseShape laser to determine horse's 3D back shape. Photo courtesy Schleese



Forward facing tree points, incorrect tree angle and tree width may lead to serious scapular damage. Illustration courtesy of Michelle J. Powell



Subluxation caused by pressure at the SI joint as a result of saddle shifting to the right. Illustration courtesy of Peter C. Goody

HorseShape

Laser measuring takes saddle fit to the next level.

In his mission to improve the quality of lives for, and the performance of, horses, Jochen is excited about Saddlefit4Life becoming exclusive North American distributor for the latest innovative diagnostic and measurement tool from Europe, the HorseShape® laser.

"We live in a society where we have so many technologies and advances, why should they not include the equestrian industry?" he asks. "When a carpenter goes in to measure for kitchen cabinets, he uses a laser tool. With saddle fitting being so finicky and something there's still so much confusion about, now we can be 100% accurate, too."

Even the most careful and well-trained saddle fitter can't hope for that kind of precision on their own. "The way I hold the flex curve, or the way I trace that on the paper, or how I hold the pen, makes for a slightly different measurement," Jochen explains. By contrast, the HorseShape, which is about the size of a lunch box, "is a pretty fail-proof tool."

Shortly after the quick scan is completed, clients receive an e-mailed notice that the measurements are available to them online. Clients can also choose to have a three-dimensional model, based on those measurements, created. With on-site analysis of back shape and saddle fit with a three-dimensional take-away, the HorseShape immediately shows how much and where a horse has changed in his back shape. It is especially useful for conformational comparisons over time and after a saddle has been properly fitted.

Saddlefit 4 Life plans to use HorseShape with its network of certified fitters and Equine Ergonomists to ensure the highest standard of measurement accuracy. Saddlefit 4 Life will also make it available to other saddle manufacturers based on training and certification. "A lot of companies in Europe are interested in it," Jochen reports. "They like it because they know when their customers send that data in, it's going to be accurate."

"HorseShape allows a saddle to be absolutely customized in the truest 'bespoke' sense of the word," Jochen says. "Saddles can be fitted with 99 percent accuracy to measurements so that new saddles will fit pretty much 'out of the box' – unless your horse has changed since the measurements were taken."

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disorders and pain in the back, but often the main culprit leading to back pain is overlooked - the poorly fitting saddle.

In my book *Suffering in Silence – The Saddle Fit Link to Physical and Psychological Trauma in Horses (2013)*, I provide clear facts and answers about many equine ailments. A very common equine injury is to the suspensory ligament – a result of classical principles of dressage training and movement being replaced with flashiness, hyperflexion and a "show trot." When a horse is ridden in this manner, the back cannot come up (engage) properly and the saddle falls too far back. The rider sits behind the center of gravity and causes excessive pressure over the last floating ribs. This excess pressure on the horse's sacroiliac joint makes it nearly impossible for him to step "under himself" correctly.

The saddle's purpose is to distribute the rider's weight evenly over the horse's saddle support area (with forward facing tree points positioned behind the shoulder blades, and tree ending at the 18th thoracic vertebra), while balancing the rider over the horse's center of gravity. In a balanced saddle, the rider uses the four natural curves in her back as a natural shock absorber, allowing her to move in harmony with the horse's horizontal spine.

The average fitted saddle appears to fit well when the horse is in the crossties, but a chain reaction starts when the horse starts to move. If the saddle has not been adjusted properly to fit the larger shoulder (as most horses are muscled asymmetrically more strongly on the left), it will pinch as the shoulder begins to rotate upwards and backwards during motion. The larger shoulder will push the saddle back and twist it to the right (if the left shoulder is larger). This will cause the left side of the saddle panel to press against the horse's spine as it shifts, reducing proper function and resulting in inflammation over the S-I joint. To compensate for this, the rider leans to the left to maintain balance (you will see this phenomenon in pictures of even high level riders taken from the rear). This, in turn, may result in a subluxation at this joint, causing a misalignment and pain in the horse's back.

Muscle atrophy is another painful result of a poorly fitting saddle, but many people mistake a redevelopment of a muscle for actual atrophy. If a saddle puts too much pressure on a muscle by being out of balance, the horse will make a protective postural change to avoid this pressure. This will affect his gaits and cause constant contraction of the muscle. These muscles then begin to atrophy as they experience lessened circulation and nutritional supplementation. Fixing the problem will help fix the issue, but muscle definition can be considered either positive or negative. Muscles can develop correctly through training, but also incorrectly as a result of "protective posturing."

We encourage riders to start with a self-diagnostic saddle fit check using my "9 Points of Saddle Fit" (instructions on You Tube). Questions and potential issues should be addressed by a professional Certified Equine Ergonomist using the Saddlefit 4 Life's 80-point diagnostic evaluation

Jochen Schleese author of Suffering in Silence 2013.
Photo courtesy of Michelle J. Powell

and analyses of horse and rider, explaining optimal fit requirements for your specific build and your horse's anatomy and developmental requirements.

Saddlefit 4 Life is the only training facility for equine and saddle ergonomists which requires regular re-certification to ensure its associated network of saddle fitters are up to date with state-of the art methodology and technology. You should always ask your fitter whether they have learned about equine and human anatomy and biomechanics (crucial elements in determining saddle fit), but also where and how they were certified in their profession. Saddlefit 4 Life offers generic education and works with independently affiliated saddle fitters the world over. Check www.saddlefit4life.com for more information on the certification and training process, and for a schedule of upcoming educational events.

Solutions to back pain – for you and your horse – start with finding out "why?"

**The article Jochen references is called *("A comparison of clinical examinations of back disorders and human evaluation of back pain in riding school horses" Lesimple et al 2013.)*

For more information on Saddlefit 4 Life visit www.saddlefit4life.com or call 800-225-2242, x45.

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