



## **Sore Backs & Saddle Fit**

Sore backs are something we are starting to see more frequently. They tend to be associated with decreased performance or chronic (long term) lameness. There are many structures that make up the back, in addition to the spine there are muscles, tendons, ligaments and joints. Back soreness can come from some or all of these structures. The conformation of your horse also can affect his back, especially depending on what type of saddle you use.

When examining a horse for back soreness, veterinarians begin with palpation of the spine and the muscles. If we are able to isolate the pain to one set of structures (ie just the spine or just the muscles) this can help to direct our diagnostic efforts.

Problems with the spine in horses includes kissing spines (also called impingement of the dorsal spinous processes). Our suspicion of this is made when the horse is specifically sore on palpation of the spine. In order to diagnose this, radiographs (x-rays), ultrasound and/or nuclear scintigraphy (bone scan) may be used. Treatments can include injection between the dorsal spinous processes, shockwave therapy and/or surgery.

Remember, everything connects to the back in the horse. Horses that are back sore tend to drop (hollow) their back away from the rider. This causes them to tip their pelvis out, stressing the sacroiliac (SI) joint. This can result in SI soreness. Additionally, the hollowed back causes the horse to raise his/her head. This can result in temporomandibular joint (TMJ) pain, especially if resistance is met in the bit (via the riders hands). It can also be seen in horses that are taught to drop their heads to appear "in frame" without actually rounding through their back and pushing into a connection from behind.

Muscle soreness in the back can be due to a variety of factors, including saddle fit and the general fitness of your horse as well as their conformation. Horses can have sore backs, even with proper fitting saddles, however saddle fit is implicated in many cases of back soreness. Treatment of muscle soreness can include medications (such as methocarbamol), injection (of the muscles themselves, and/or the sacroiliac and/or temporomandibular joint).

Checking your saddle for fit is something that can be performed by your veterinarian. If scheduling an appointment, make sure to have all the saddles you may want to have fitted or possibly use on the horse. Also have any pads you use available. In some cases, the fit with the girth tightened or with a rider in the saddle is also evaluated.



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### Evaluating the fit of Your Saddle:

1. Stand the horse squarely on a flat surface
2. Place the saddle, without any padding, on the horses back
3. Evaluate the deepest part of the seat, making it level with the ground
4. Check the position of the saddle on the horse's back—make sure it is not too far forward or too far back
5. Slide your hand between the horse's back and the underside of the saddle. Check for areas that are pinched — especially under the points of the tree
6. Evaluate how the panels lie on the horses back. Is there adequate spinal clearance? Is there adequate contact of the panel with the back?
7. Using gentle pressure, press on the pommel (or horn) of the saddle — does the saddle rock? Repeat with the cantle (back of the saddle). If the saddle rocks, there is an area that it is pinching the back.
8. Check for whither clearance—English saddles should have three to four fingers of clearance between the top of the withers and the underside of the saddle. Too much means the tree is too narrow and too few means the tree is too wide.

Some problems with the fit of the saddle can be modified with padding, however this must be done very carefully! Adding padding to fix one area may result in too much, and therefore pinching, in another area. Trees that are too small are, unfortunately, not typically fixable.

Some horses that have back pain, even after correction of the fit of the saddle, may need injection or other therapy to break the pain cycle. Often, especially with long term back pain, there is a loss of epaxial (back) musculature. Loss of these muscles can be stopped and sometimes reversed with careful riding and rehabilitation.

Remember: saddle fit is not something that is only done once for a saddle/horse combination, as the contour of the horse's back and sometimes the saddle will change overtime. Periodically checking the fit of your saddle will help identify poor fit and related back soreness early, before muscle loss can occur. Working with your veterinarian can help you identify if your horse has a sore back and ways to fix it.

—Rachael S. Levine, DVM