# TRAINING&SHOWING

## **Top 10 Signs** of Poor Saddle Fit

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It is apparently a psychological truth that people have an affinity to lists consisting of 10 points; maybe because we have 10 fingers, 10 toes, there are 10 commandments, etc. 10 is just a nice round number to work with and easy to count off. David Letterman adopted an interesting institution with his "top 10" lists on his late show. I don't know why I actually came up with 9 signs of poor saddle fit that you can self-diagnose, but those are what they are and I couldn't artificially inflate that number. You will see 7 or 8 points in the literature as well, but I think these lists combine some of the points of reference.

So – here now are 10 signs of poor saddle fit resulting in issues that you should avoid if at all possible by having your saddle checked and adjusted regularly. Many of these issues are caused by a gullet plate which does not properly accommodate angle and width of the shoulder, and ends up pinching at the withers.

### • Tightness of muscle at front edge of shoulder blade.

This is generally caused by a gullet plate which pinches at the withers on the trapezius muscle causing the horse to consciously contract the muscle to avoid the pain.

## • Lameness in the front, if the insertion of longissimus is pinched at the withers.

The longissimus is the long back muscle, which we want to be smooth and supple in order to engage the back during movement. Again – if the insertion at the trapezius is impacted by a too narrow gullet, this will impact the ability of the horse to move freely and can cause lameness or tripping on the forehand.

### • Pinched withers cause twitching at the elbow.

This is a simple muscular reflex and is not consciously controlled by the horse - it is a reaction to the pressure of the gullet at the withers.

### • Muscle atrophy (visible indentation) in the loin area.

Muscle atrophy can occur when an unbalanced saddle puts too much pressure on a particular area, and the horse tries to avoid this pressure. He goes into 'defensive mode' by contracting the muscle in the area (as well as the surrounding muscles) and can even alter his gaits. Under the point of pressure where circulation is impacted (thus reducing nutrients and oxygen to the affected area) the muscle will 'undevelop' or atrophy. *(Photo 1v)* 

## • Hair loss, blisters, inability to move the skin around in the saddle support area. (*Photo 2*)

These issues develop often at the withers area (hair loss resulting in white hair growing back) or along the spine where the gullet channel is too narrow for the horse's back. Fluid bumps can develop when the horse is ridden hollow and the transverse processes of the spine touch each other or rub (as in kissing spine), or the withers are not in alignment with the spine. Fluid bumps can also come when the ligaments have been injured previously from saddles with gullets that were too narrow.

### • Bucking reflex activated by saddle that is too long – causes 'hopping'.

The saddle support area is between the base of the withers (usually where the mane ends) and the 18th thoracic vertebra. Past this vertebra are the lumbars, upon which the saddle should not lie – as this is where the so-called bucking reflex is located. We've all seen horses that react in this way to a saddle which lies past the saddle support area – a simple attempt to rid themselves of the irritant causing pain (which is why many saddles are then 'pushed forward' through the motion of the horse itself). *(Photo 3)* 



Photo shows muscle atrophy at the loin area – paradoxically caused by an incorrectly fitted gullet plate, which seated the rider too far back creating excessive pressure in this area.



Continued...

## • Atrophy at the croup – pressure on the spinal nerves causes one-sided

**development of the muscles as horse tries to avoid pain.** (*Photo 4*) As explained by veterinarians, atrophy will occur under severe instances of constant pressure which will first damage the hair follicles (resulting in hair loss and/or white hair). This can be reversed only when the cause is addressed (i.e., the pinching saddle), which will allow the muscle to regrow although the white hairs remain. Muscle memory will help in the rebuilding of atrophied muscles if these were properly trained. It will take significantly longer to build up untrained muscles or incorrectly trained muscles.

## • Energy blockage to the meridians can cause heart, circulatory, and breathing issues. (*Photo 5*)

Eastern medicine follows the theory that life energy flows along meridians; humans and equines each have 12 meridians which can be influenced through acupuncture. When the saddle puts pressure on the meridians (the red lines in the diagram) the flow of energy is interrupted, causing several of these symptomatic issues to appear.

## • Too narrow gullet channel impedes expansion of the longissimus can block the movement of the forehand and cause uneven sweating.

The gullet channel needs to be wide enough through the entire length of the saddle to accommodate the spinal processes, ligaments, and nerve endings from front to back. The width cannot be an arbitrary decision; the necessary weight bearing surface still has to accommodate the rider's weight while keeping the conformation of the horse's back in mind. The optimum width is between 6 cm and 10 cm; it will seldom be wider and should never be narrower. Padding a too narrow channel with extra padding to 'fix it' is like wearing another pair of socks when the shoes are already too small!

#### • Pinching girth will shorten strides.

About 20% of instability issues arise from the girth. The girth should be narrowest at the spot where it sits under the elbow and between 4-8 inches wide at the sternum to displace the pressure as evenly as possible along its length. Girths that are too short and too narrow may actually cut into the pectoralis muscle. Wider is always better, but it should be narrow towards the ends and have elastic on both sides to allow the horse to breathe better.



▲ Good width gullet channel ▼ Too narrow gullet channel

The more a girth can distribute the pressure over a larger area, the more comfortable the horse will be. The 5" and 8" width girths, left, (with both sides elastic) are good examples of girths we recommend.