

The Nine Points of Saddle Fit

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As we head into spring, it's time to put our thoughts into ensuring that all of our tack and equipment will work for the upcoming training months, and for the shows we intend to compete in. Especially if your horse has been 'laid off' for the winter months you will need to ensure that the saddle is fitted properly to allow him comfort and freedom to muscle up again when you begin training in earnest. While it can take four weeks for a muscle to build up with consistent training, it takes only one week for the muscle to regain its original shape (which is negative development). Thus, even if you have given your horse just a week off from training, you will find that your saddle may not fit the way it did and the way it should, so that you should have a diagnostic evaluation done and the saddle adjusted by a certified fitter before you begin training again.



This dressage saddle shows where the center of balance is.



The distance between the top of the withers and the sides of the withers should be 2-3 fingers all around.

A quick diagnostic can be done using our 9 points of saddle fit evaluation (with videos available to show you how at our youtube channel at www.schleese.com)

1. Saddle Balance

A saddle too high in the pommel and too low in the cantle causes pressure on the horse's back. It will be very difficult for your horse to engage his back because too much of your weight is on his last 2 floating ribs.

If your saddle is too low in the front it will pinch into the horse's shoulder – which is very restrictive for your horse. Your saddle is too high in the back so your leg goes forward and you fall into a chair seat to balance which can strain the discs in your lower back. With correct balance the rider will be able to use the 4 curves in her back as natural 'shock absorbers', and she will be positioned comfortably.

2. Withers Clearance

The saddle should have 2-3 fingers clearance on the top and around the side of the withers. The saddle must have an opening (clearance) on the sides of its withers to accommodate the shoulder rotation upwards and backwards during movement.

A horse whose saddle pinches his withers may be reluctant to go forward. Other more extreme signs of insufficient wither clearance are patches of white hairs (not scattered individual white hairs) or sores on the top or on one or both sides of the withers.

3. Channel/Gullet Width

A saddle with a channel or gullet that is too narrow can cause permanent damage to your horse's back (but also, if it's too wide that's not great either). There is no such thing as "one size fits all" where the channel or gullet of your horse's saddle is concerned. Instead, the width of each horse's spine will determine how wide his saddle's gullet must be.

It is very important that the width of the gullet be the same throughout the entire length of the saddle. It is only infrequently that we find a saddle that is too wide through the gullet for a particular horse. But such a saddle will have inadequate weight-bearing surface, may start to strip muscle away from the top of the ribs, and the back of the tree may actually rest on the spine.

4. Full Panel Contact.

Ensure that your saddle's panels make even contact with your horse's back all the way down to distribute the rider's weight over an area that equals approximately 220 square inches and ends at the last rib. Test for even contact by sliding a pen or pencil (or your hand) in between the panel and their horse's back.

When rocking occurs, the panels at the front and/or back of the saddle do not make even contact with the horse's back. Note that sometimes your saddle may be made with panels that deliberately flare up at the very back, so the last inch or so of the panels don't make contact with your horse's back. This is done for instance, when there is a need to accommodate a tall or large rider on a horse with a short saddle-support area. If fitted correctly, this saddle will not rock. This extra room is also important for the back to come up when the horse engages during movement.

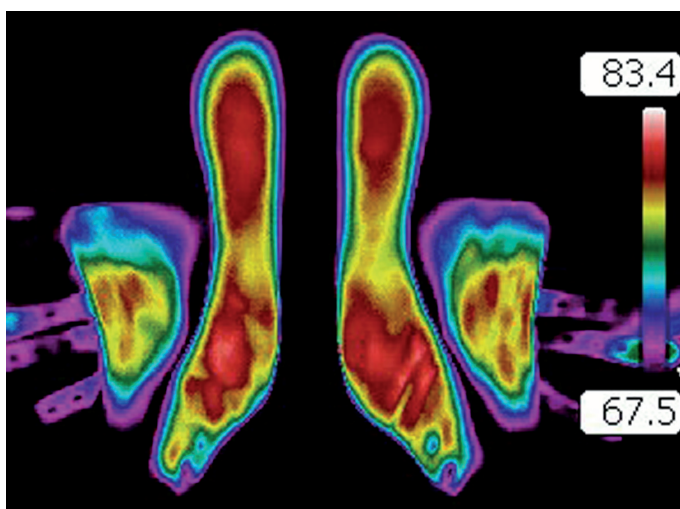
Sometimes we hear that slight bridging is a good thing, because when the horse lifts his back as he is being ridden, his back will come up into and fill in the space left by the bridge. While this may seem logical at first, it doesn't work. Even when your horse lifts his back while being ridden, his saddle will still bridge. The goal of saddle fitting is to have the saddle distribute the riders' weight evenly over the saddle support area, and it is important that the saddle neither bridge nor rock.

5. Billet Alignment

Have you ever had to stop in the middle of your ride and reset your saddle because it has moved forward onto your horse's shoulders? This is a common problem, and it is often caused by improper billet alignment. Unless the billets on your saddle are positioned correctly, your saddle will not stay in its proper place on your horse's back.

Billets should hang perpendicular to the ground in the girth area. If the billets hang too far back, gravity will pull the billets (and the saddle) forward into the girth area. The girth will always find its position at the narrowest point of the rib cage, driving the saddle forward onto your horse's shoulders.

If the billets hang too far forward into your horse's elbow area, they may make him sore in the elbows. Gravity will drag them (and the girth and saddle along with them) back into the girth area. There will now be too much pressure on the panels at the rear of the saddle. (see right)



(1) This thermographic image shows a saddle with panels that bridged too back, resulting in greater pressure at the pommel and cantle areas.

6. Saddle Straightness

Straightness means that the center of the saddle is in alignment with your horse's spine. Sometimes, a saddle that appears straight when the horse is standing in the crossties will shift to the right or left when the horse is being ridden, leading to problems with your horse's SI (sacroiliac) joint.

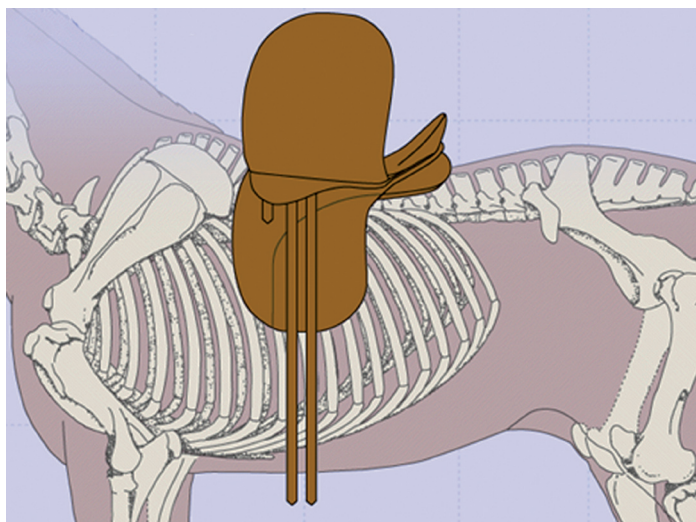
Horses are by nature uneven. Most horses have a left shoulder that is larger and more developed than their right shoulder. The larger shoulder kicks the saddle over to the other side during motion.

A rider who sits unevenly due can compress the stuffing more on one side of the saddle, and drag it over to that side.

7. Saddle Length

Many of us are familiar with the term "short-backed" to describe a horse, but even a horse with a back that appears to be of normal length may actually have a very short saddle support area. The length of the saddle support area will determine how long the panels must be.

Breeds that commonly have a short saddle-support area are Friesians; Baroque type horses such as Andalusians, Lusitanos, PREs, and Lippizaners; Arabians; and more and more frequently, "modern-type" Warmbloods. One common saddle fitting issue here is that the saddle panels are often too long for their backs. The saddle must sit behind the shoulder. A saddle that is too long often will get driven forward into the shoulder. The saddle cannot extend past the last floating rib at the 18th thoracic vertebra. A horse ridden in a saddle that is too long will often tighten his lower back muscles; in some cases, you can actually see the horse hollow and drop his back in an attempt to get away from the pressure of the saddle.



This saddle is positioned behind the shoulder but a) is too long for the horse's back as it extends past the 18th thoracic vertebra and b) the billets are too far back and will pull the saddle onto the shoulder in motion.



This rider is sitting on a saddle which has shifted to the right – presumably



The angle of this saddle is the same as the shoulder angle of the horse.

8. Tree Angle

The angle of the tree (at the tree points for the gullet plate) must be adjusted to match the angle of the horse's shoulder. Think of two sliding doors. If they are properly aligned, one will slide freely past the other. But if they are not, one will jam into the other. It is the same with your horse's shoulders and the angle of his saddle's tree. As the horse moves, his shoulder rotates upward and backwards. If your saddle's tree angle does not match the angle of your horse's shoulder, his shoulders will be unable to rotate freely under the saddle, compromising his movement.

Check if the angle of the piping on the saddle matches the angle of your horse's shoulder. If it does, the angle of your saddle's tree is correctly adjusted for your horse.

9. Tree Width

The tree width at the gullet plate must be wide enough for the horse's shoulders to rotate freely under the tree.

If the tree width is too wide, the entire saddle may rock or slip from side to side when it's being ridden, or the back half of the saddle may twist to one side or the other.

Tree width and tree angle need to be adjusted together. If the width of your saddle's tree is correct for your horse, but the angle is incorrect, the saddle will not fit your horse. Conversely, if the angle is alright, but the width is not, the same will happen. Adding flocking to or removing flocking from the vertical panels of the saddle will not solve the problem – it is the gullet plate that needs to be adjusted. Some of the self-adjustable gullet plates will accommodate angle adjustment, but will not allow width adjustment (over the wither area). Hopefully these tips will help you get ready for a successful show season while ensuring your horse has the freedom to perform at its potential!

Happy Riding!

www.saddlefit4life.com
www.saddlesforwomen.com

Jochen Schleese, German Certified Master Saddler and Saddle Ergonomist, teaches saddle fit principles to protect horse and rider from long-term damage caused by ill-fitting saddles.

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The three diagrams on top illustrate identical tree angles with different tree widths; the three on the bottom illustrate identical tree widths with different tree angles (such as can be effected with the 'self-adjusting' trees of various companies – but changing angle without changing width is not always a good thing).

