EQUINE INSPIRED LLC
(855) 469--4677
WWW.equineinspired.info

SADDLE FITTING BEYOND THE BASICS

Through my studies of Equine and Human Anatomy, we have developed a procedure that focuses on allowing the horse to move with the least amount of resistance of saddle and rider, and also allow the rider, no matter how they are built, a position that will allow them to ride in their natural aerobic frame. This study has ironically followed the exact laws and formulas that we learned to become engineers; Boyle's law of the cantilever, Newton's law of motion, geometrics and other boring analytical rules have become a necessary study in which saddle-fitting should follow. After all, the skeletal frames of the horse and rider are supported by an array of muscles, tendons and ligaments that follow those rules. So with that knowledge, when we design and fit our saddles, the goal is to allow both horse and rider to move in their natural biomechanical frame

Equine Inspirer's certification program

Each of our saddle-fitters has personally worked with me for at least a year. In addition, they have had to spend bench time either in one of our mobile shops, or at our saddlery in England. Some have gone on to receive additional training in the equine disciplines, or for horse and human anatomy certification programs; Dr Gerd Heuschman, Jim Masterson, Carl Milkoka, Dr Deb Bennett, and others. What we stress, is that in addition to designing the saddle for correct fit to horse and rider, our saddle-fitters have to know how to adjust the saddle to fit the horse properly, and also have the ability to understand what the horse is being asked to do for a particular discipline.

"We do not adjust the saddle for where the horse's frame is, but for where their frame has to be".

When I first became a saddle-fitter 20 years ago, I attended three separate saddle-fitting certification programs; one in Canada, one in England, and one here in the U.S. I don't use these certifications on my resume, because all were contradictory of each other, and basically were more about how to sell the product they represented, rather than how to correctly fit a saddle for horse and rider. In addition, their assumption of measuring a horse for either selling a client a saddle, or fitting a saddle for a horse, was based on the horse's conformation while standing in an aisle-way, or what is known as the static frame. However, that static frame is often indicative of a horse in a compensating frame due to a previous saddle not fitting correctly, perhaps incorrect shoeing, a possible lameness, a horse being pushed in its training, or even a nutrition problem. In any case, the lack of correct muscles, or the development of compensating muscle groups may contribute to: a poor developed top-line, flattened pelvis, camped under, sway backed, or any other unnatural frame.

So what we do is to not just look at the back of the horse where the saddle sits, but look at the big picture; first identify the conformation faults and question the client about any abnormalities you observe. Then progress to a complete analysis of the muscular/skeletal frame looking for the asymmetry and balance of the major back muscles of the top-line; latissimus and longissimus dorsi muscle groups. We also look at the hamstring group of muscles; bicep femoris, semitendinosis, and semi membransus muscles. The development of those

muscles can tell us a lot about the entire hind quarters; activity or passiveness of the hocks, stifle/hock motion, and the balance of those muscles with the gluteus medius and superficialis muscles, which determines the articulation of the pelvis. Then there is the balance of the ilocostalis which can tell if the horse is working in a scoliatic motion. Gaskins and biceps can tell us about the forwardness of the horse. Deltoids and triceps tell us if the shoulders are popping. The mandible and atlas have to be palpated to see if there is tension in the pole and jaw. In other words, the correct and compensating frame of the horse in a static frame can tell us volumes about how the horse is moving, and what compensations a rider must be making to ride effectively, but it is usually not the frame in which we would want to measure a horse to order a saddle, or for reflocking , which often times would be counterproductive.

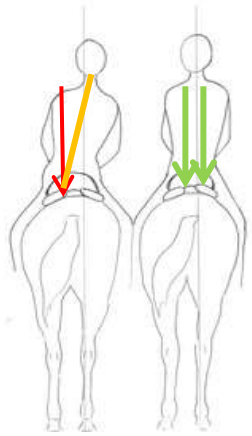
From those observations and questions to the rider about their balance or bracing issues while riding, we can make some calculated assumptions. For an example, when we see that a horse has an overly developed left brachiocephalic, and left ilocostalis muscles, we know that the rider is sitting left, collapsing their upper body to the right, and the horse is bracing on the left rein and perhaps having right hock and stifle issues.

"What we can do to adjust a saddle for the horse's aerobic frame"

From experience, we have found that once we have determined the degree of asymmetry, and adjust the gullet plate, if needed, and reflock the saddle to reverse that asymmetry of the horse, this will allow the rider to sit centered in the saddle, whereas now both their sitting bones should be making equal pressure. The stirrup lengths should now be even allowing the rider equal weight in the irons. Their knees should be making even contact with either thigh blocks or knee rolls. If the rider had been collapsing in one direction; their tight oblique muscle should now be relaxed. Also, if the horse had been stiff on a rein because of the rider's cantilevered, collapsed position, that bracing should also disappear. And, this relaxed position should give the rider a better sense of security, and the ability to communicate their aids more effectively.

For the horse, the new centered position of the rider, should allow the horse to move with a lot more forward. The horse that doesn't have to brace on a rein for balance, should become more relaxed in the jaw and poll. Also, a horse that has had a rider basically sitting on one side of their frame, can now share the weight of the rider equally over its four quarters; the active hock, doesn't have to do all the work, and the passive hock, although weak, can now begin to track straight and be in a position to build the correct musculature.

"The second element in the equation of saddle-fitting and equally important, is what the saddle is doing for the position of the rider"



The sketch to the left, is a depiction of the comparison of how a woman rider (left), and a male rider (right) would sit in the exact horse and saddle. Because a woman rider will most always have a much wider base than their male counterparts, those women will have to make some bodily compensations, as shown by the red arrow. In this depiction, she is placing more of her weight in the saddle on her left sitting bone – when that occurs, she will have to collapse to the weaker side, otherwise she would fall off the horse. The male rider with a narrow base doesn't have to make that same compensation indicated by the equal weight distributed, as shown by the green arrows.

Perhaps the biggest problem we encounter is the inability of a woman rider to sit evenly on a horse that is asymmetrically built – which is 99% of all horses. For an example; in the past as a rider and trainer, I always felt that I was centered in the saddle, and could tell which side of the horse was weaker and what I had to do to strengthen that weakness. However, after taking hundreds of saddles apart, I soon realized there was a big difference between the wear on the seat of a saddle between men and women riders. The males' indentations of their ischial tuberosities or sitting bones in the seat of the saddle were often equal in wear, and centered in the seat. However, in most women's saddles, there was always one deeper indentation made from their tuberosity on one side versus the other side, and often times those indentions were not centered in the seat of the saddle.

The reason for this dissimilar wear in the seat of the saddle between a man and a woman, is that a man's sitting bones may only be a few centimeters apart - a very narrow base. However, a woman's sitting bones may be as much as 13 centimeters across depending on hereditary traits - Mediterranean lineage women with wider, open hips, will have a wider base to sit, but women with a northern European lineage descent, may have a narrower placement of their sitting bones, much like a man. So, when a horse is asymmetrically built and the saddle is falling to the weaker side, the man or woman with narrowly placed sitting bones may only have to readjust their base a fraction of an inch to stay centered and yet feel both sides of the horse evenly. However, for the woman rider with a wider base of her sitting bones, she will find herself falling further to the weaker side of the horse, which will force her to move an inch or more to the stronger side of the horse to feel centered. Although now centered, she will also be unbalanced - to compensate for that posture, which will force her to collapse her upper body back to the weaker side. This one simple compensation, can then start a chain of events leading to many more compensations which will both stop the development of building correct muscles and start developing compensating muscles: having the horse brace on one rein, tightness in the jaw and poll, lack of forward, increased weakness to the passive hock, and other muscle, ligament, and tendon issues that will now occur because of her horse carrying the weight of a rider in an unbalanced frame.

"How we can make the rider's position more effective, and reduce back pain".

Also, a comment that we have received from hundreds of our customers, is that the lower back pain and sometimes sciatic conditions they felt after riding have since disappeared after our corrective reflocking. The reason explained to us by chiropractors, is that in their compensating frame of sitting on one sitting bone, and collapsing their upper body in the other direction, that compensating position has caused a nerve impingement in either one of their lumbar discs, or where the spine connects to the sacrum.

This is not a black and white problem - this is very gray issue. But from our experience with those women rider's that are experiencing position, relaxation, balance, and bracing problems while attempting dressage, asymmetrically flocking a saddle is a necessity, but it has to be done by someone that really has an understanding of the biomechanic movement of a horse moving in a compensating frame, otherwise it can be completely counterproductive. So in conclusion, as saddle-fitters, we have to look at every horse and rider combination differently; we just can't always assume that we are dealing with a saddle-fitting issue. It may be a lot bigger than that; you might be dealing with a shoeing problem, lameness, or training issue that is causing compensation, that will require professional help from their respective fields. After all, our main goal is the comfort of the horse, because once that has been addressed, adjusting a saddle which will allow the horse to move in their natural biomechanic frame, and having the rider represent live weight to their horse, makes any discipline easier to succeed in.