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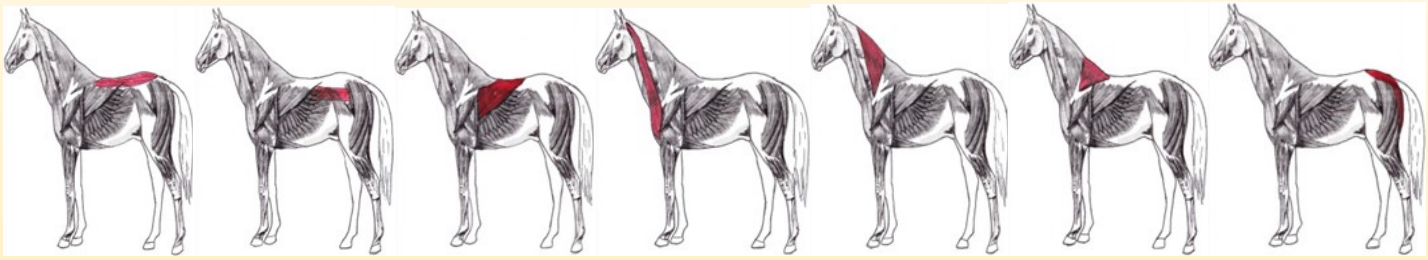
CONFORMATION BALANCING

OUR CONSULTATION WORK SHEET

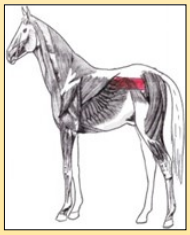
As I am both a certified Conformation Balancing Practitioner, and Saddle Fitter, when I first meet a client, I perform an Equine Consultation. Whether this is for performing corrective body work, or check a saddle for the correct fit to both horse and rider.

I look at the horse in their 'static' frame, either being held, or preferably in cross-ties. I don't want the horse to be ridden or lunged first, as the static frame can tell me a lot more about the compensating musculature, rather than a horse in what I call their aerobic frame - the frame which is achieved after the horse is warmed up. This is where the correct muscles will distract from the horse's compensating muscular/skeletal frame. **The following is how I grade the strength of the correct and compensating muscle groups**



L	R
1	1
2	2
3	3
4	4

LONGISSIMUS | ILIOCOSTALIS | LATISSIMU S | BRACHIOCEPHALICUS | CERVICAL TRAP. | THORACIC TRAP. | GLUTEUS/HAMSTRINGS



L	R
1	1
(2)	2
3	3
4	(4)

In this example, the left side of this compensating muscle group called the Iliocostalis, is scored a '2'. The right side is scored a '4'.

The Iliocostalis supposedly has a purpose, but the development of this compensating muscle can tell a very elaborate story. Often found to be overly developed on the stronger side of the horse, it's degree of muscling tells us which side of the saddle the rider is sitting, the inward movement of the passive hock, and outward movement of the strong side fore, & also if the horse is bracing on a rein for support. It can be found by running your hand down the center of the back about 10 inches from the spine. **What those scores mean.**

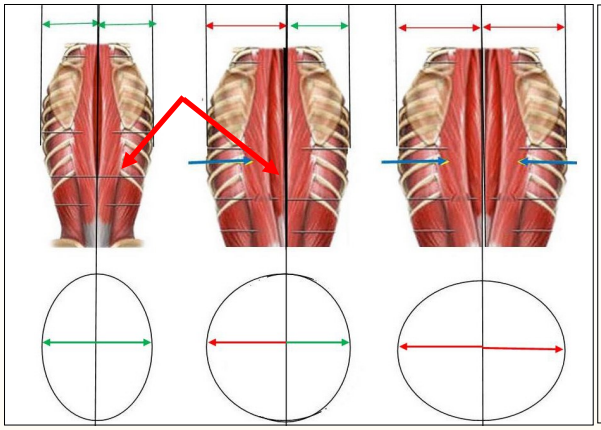
(1) This horse has developed this muscle group on both sides. It will be middle hollow, tense in the poll and jaw, and be very uncomfortable to ride due to its very wide barrel.

(2) A definite ridge on one side that almost leaves a shelf for the saddle to sit. This horse will also be bracing on the rein on that same side and will be stiff in that direction.

(3) A definite ridge felt, but not necessarily enough to cause the horse to move with a compensation.

(4) There shouldn't be a noticeable ridge of muscles on either side of the horse's back – the rider should be able to sit evenly on their sitting-bones.

What the grading of those muscle groups is telling us.

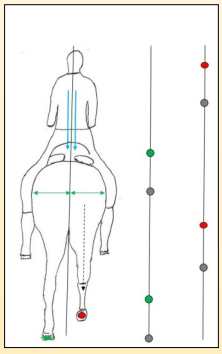


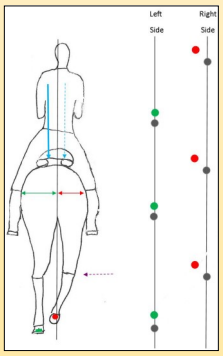
The 3 top-view sketches of the horse's back to the left, are showing the major back muscles of the horse. The red arrows are the top-line muscle group, or Longissimus Dorsi. The blue arrows are the compensating muscle group, called the Iliocostalis

The sketch on the left, is a balanced flank-sided horse having none of the compensating Iliocostalis muscle group. The middle sketch, is showing that there is an overdeveloped Iliocostalis muscle group on the left side only. This is a saddle-related issue we see every day. The right sketch, illustrates a horse that would have overdeveloped Iliocostalis muscle groups on both sides - this is the barrel-sided horse like the Friesian..

The importance in correctly identifying that compensating muscle group and then adjusting the saddle to correctly balance the horse is paramount. For it is that unbalanced frame that will not only cause incorrect muscle development, but will force the horse to track unevenly, which will cause lateral flexion in the horse's stabilizing cruciate and collateral ligaments in their stifle and hocks.

With that over-developed muscle group, in the above center sketch, at the bottom of that top-view depiction, is showing that there is an oblong circle indicating that there is more muscle mass on the left side of the center line, red-arrow, than the side without an over-developed iliocostalis, green ar-





On the sketch to the left, is demonstrating how a balanced horse should be built; equal muscling on both hind-quarters, and by the footfalls to the right of that sketch, are in alignment, which indicates that this horse would have strong lateral strength of their stifle and hock supporting ligaments and tendons.

For this rider sitting on a balanced framed horse, there should be equal weight on their sitting bones, double green arrows, their horse would not lean on a rein for support, and would have the ability to communicate their aids equally in both directions.

On this sketch to the left, is the rear-view of an unbalanced horse with more muscling on their left side than on the right. With that unbalanced frame, the saddle will feel like it is sliding to the weaker side, in this case the right side. Most riders will counter by sitting more heavily to the opposite side sitting bone, green arrow, to keep from falling to the right.

With the horse unable to sway their rib-cage to the right, it will continue to build more strength on the active side, the left side, and atrophy muscles on the passive right side.

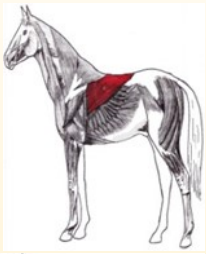
The is the beginning of a lot of horse-to-rider, and rider-to-horse compensations. First, with the rider sitting left, they will have to lean their upper body to the right for lateral balance, evidenced by the rider dropping their right shoulder. This will cause the horse to brace on the left rein to compensate for the rider's cantilever position. This creates a stiff left side, and a hollow right side. Because the rider is sitting left, the horse will have to 3-track with the passive right-hind - notice the right side foot-falls, shown in red circles, to the right of that sketch. That inward rotation of their right hock, and outward rotation of their right stifle will eventually create the need for injections to those joints due to hind-limb instability. **Our saddle-fitters are trained to reverse that asymmetry, by re-flocking the saddle to allow the rider to sit evenly on their sitting-bones - straight rider, straight horse.**

Additional correct and compensations of the horse's muscular development.

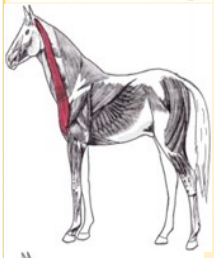
In addition to the compensating Iliocostalis muscle described on the previous page, each of those other correct and compensating muscles mentioned, plus elasticity or laxity of supporting tendons and ligaments is noted - as each one will tell a story of how the horse is correctly moving, or if an incorrectly fit saddle has prevented the horse from doing so.

Some of those compensations that we often see:

The lack of the correct muscling of the horse's Longissimus Dorsi, is often the result of the horse not being able to lift their back as the result of the horse activating their abdominal muscles. This can be due a saddle that is rocking, which is usually a result of the saddle being too wide, a banana tree, or a saddler that didn't correctly bridge the saddle. It can also be the result of using a foam panel saddle, that can't address the required panel contact.



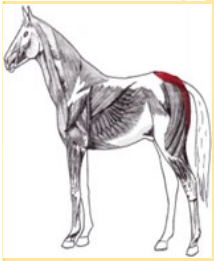
The strength of the Latissimus dorsi is required to get the horse off the fore, which is the first step to getting the horse to work from the hind-quarters forward (thoroughness). This is usually a result of the saddle being too wide or too narrow, thereby blocking the backward movement of the scapulas, shoulder-blades, which is the necessary energy for the full range of movement of the humerus, in order to correctly build that muscle group.



The overdevelopment of the neck's under-muscle, Brachiocephalic, is the byproduct of an ill-fitted saddle that didn't address the asymmetry of the horse's back. With the inability of the rider to sit evenly on their sitting bones, the horse will have to brace on the rider's strong side rein, due to the cantilevered position of the rider trying to laterally balance. If both sides are overdeveloped, it is often a result of the rider being behind-the-motion.

The correct development of Cervical Trapezes, along with the Splenius and Rhomboid, is the result of a correctly designed and fit saddle that allows the rider a position where they can balance without having to hang on their horse's mouth. However, if the rider is manipulating the horse's head into a position of 'hyperflexion', causing them to brace against the riders reins, which will often create an unattractive crest.

The Thoracic Trapezes, or wither muscle, is probably the number one issue with an ill fitted saddle. For the narrow-withered horses, most saddles can't be adjusted narrow enough to comfortably fit that muscle group, rather the tree sometimes sits right on top of the skeletal processes which will prevent both the development of the Latissimus and Longissimus dorsi. For the wide withered horses, most saddles can't be adjusted for those wide withers



The interaction between the horses gluteus and hamstring muscle groups is what gives the horse it's ability to have a balanced retraction and propulsion of their hind limbs. However, when there is a visible disconect, normally a dip can be seen halfway between the end of the saddle and the tail, it is almost always a reflection of the pressure of the saddle on the horse's sensitive wither muscle. Fix the contact of the saddle on the wither, will almost always fix the energies required for the hindquarters to work correctly.

With this information, and the rider's feedback, we can now fit their saddle.