



Dr. Beverly Gordon

Gordon Chiropractic, P.C.
www.TheHorseInMotion.com
TheHorseInMotion@aol.com
EquineDC@aol.com

The Horse In Motion, LLC, Pres.
Oyster Bay, NY 11771
Wellington, FL, 33414
cell # (516) 606-4141

SADDLE FIT AND PERFORMANCE

Part 1- INFLUENCE OF THE SADDLE

In response to my last article "*The Riding Muscles*" Schleese Saddlery submitted a letter to the editor mentioning that a properly fitting saddle influences the riders ability to perform well. While there is no substitute for good training and education, it is certainly true that saddle fit can play a very important role in overall development, movement and performance for both the rider and the horse. I would like to thank Schleese for their valuable input, and use the next two articles to discuss the important role which proper (and improper!) saddle fit has on both riders and horses. Next month we will follow up with the "how-to" portion of saddle fitting.

I think the most common impression riders have concerning saddle fit, is that poorly-fitting saddles can cause back problems in horses. While this is certainly true, and probably occurs more often than most people think, poorly fitting saddles can actually create problems riders might not typically associate with the saddle. And, having a saddle which fits well is just as important as *not* having a saddle which doesn't. This is so because while poorly fitting saddles can *create* problems, well fitting saddles not only can *enhance* the ability of the rider to use their aids correctly but improve the horse's freedom of movement as well.

Since the dynamics of proper saddle fit are at least as important for the *rider* as well as for the horse, let's start by looking at the effect the saddle has on both the horse and the rider.

Effect on Horse and Rider

The Horse

Incorrectly fitting saddles commonly do not fit the horse because they are either the wrong size or the wrong balance. By that I mean that the saddle can be too narrow or too wide, or the wrong shape for the horse's conformation so it creates pressure points on the horses back. And poorly balanced saddles can shift or sway, or lack the balance necessary for effective rider position, which of course affects the way the horse will move. So, on that note, let's look at how incorrectly fitting saddles adversely effect the horse's movement.

Everyone knows how important it is for the horse to build well-developed, healthy muscles along his top line, supported by strong abdominal muscles. Not only is this important to keep the horse's back strong and prevent spinal injuries, this is a necessary component for self carriage and therefore good performance as it affects the overall movement of the entire horse. Achieving full athletic potential can only be attained when the horse is able to use his spinal (and abdominal) muscles to 'lift'

the back, beginning with an uncompromised desire by the horse to stretch his back and move forward. Obviously, this cannot be accomplished if the horse's back muscles are tense or sore, or if the horse drops his back with stiff rigid contracted muscles as is often seen with poorly-fitting saddles. Remember- saddles are basically rigid and inflexible, and can easily produce "pressure points" against the horse's back. It is these "pressure points", along with saddle shift from imbalance which are responsible for the majority of saddle fitting problems.

Physiology of Improper Saddle Fit

When we school our horses we strive to not only create but enhance the natural freedom of movement exhibited by the horse. When the horse is negatively affected by the influence of the saddle, physiological changes occur as a reaction by the horse's body to adjust. Here are a few in the general order of occurrence.

- 1 pressure points result in muscle splinting which occurs to protect the areas of uneven or irritating saddle pressure, local areas of swelling
- 2 tension in the affected muscles result in altered physiology such as decreased blood circulation, myofascitis (muscle/fascia inflammation), hyper-tonicity (muscle spasm), trigger points, and atrophy
- 3 altered biomechanics of vertebral function causing spinal fixation (subluxation), decreased range of motion of vertebrae, and neurological interference
- 4 decreased motor function (NOT ONLY OF THE BACK MUSCLES), chronic sprain of supporting ligaments,
- 5 compensations elsewhere (including the feet!) for stressed or altered physiology/biomechanics
- 6 permanent damage such as muscle scarring from fibrotic adhesions, "kissing spine", degenerative changes

Compensations for altered biomechanics can occur anywhere in the horse's body. it is not difficult to understand how uneven saddle pressure can create not only faulty movement but physiological damage to your horse's body.

**Note - You can find a good article on www.schleese.com by Dr. Gerd Heuschmann called "Functional Anatomy of the Horse - the Back"*

The Rider

Since it is actually the rider who communicates to the horse just how he should move, the rider's influence is paramount to determining how the horse's muscles will develop. Generally speaking, it is not the rider's weight which interferes with the horse's movement, but his position. Therefore, anything which interferes with the riders' balance and their ability to use and develop their own muscles properly (see my last article "*The Riding Muscles*") will necessarily interfere with the horse's balance as well. And it is a well known fact that tense riders make their horses tense. (Remember - one of the key components of training is relaxation)

Just like their horses, rider conformation plays a part in determining how the rider will likely ride their horse; i.e., does their conformation support, or hamper their ability to ride? In other sports there is an ideal body type and conformation; for example it is not advantageous to be tall in gymnastics, but definitely advantageous to be tall in basketball. Long arms would be advantageous to golfers as they can create a larger swing arc and generate more club head speed. And I don't think

there are many sumo wrestlers deciding to take up horseback riding.

Do not take this, however, to mean that people whose conformation is less than ideal cannot become skilled successful riders competitive at every level. Learning to adjust pelvic and hip angle, weight and leg placement, and clarity of the aids will often compensate for conformational difficulties. A properly fitting saddle can help the rider establish correct position and balance regardless of their specific physical attributes. Therefore, when we discuss saddle fitting we MUST consider the rider's needs and body conformation as important as that of the horse.

Symptoms of ill-fitting saddles

Poorly fitting saddles can create a multitude of symptoms in the horse, such as:

- *changes in horse's attitude or behavior, *horse dropping his back when ridden or being saddled, *being "cold-backed", *general resistance to work, *decrease in quality of horse's performance, *difficulty relaxing or rounding the back, *slow warming up, *back tenderness or hypersensitivity, *swellings or rubs in saddle area, *obvious discomfort when being girthed, *restriction in movement under tack, *lack of muscle development, *white hairs along the saddle area, and *the appearance of irregular gaits and lameness.

Saddles which aren't the proper fit for the rider might create symptoms such as:

- *rubs or soreness after riding, *difficulty balancing, *difficulty keeping their legs in the correct position or using weight aids, *being "thrown" forward or backward, *developing pain in the back or elsewhere, *difficulty keeping their toes from turning outward, *keeping their legs from sliding forward, or, it might be something as simple as the saddle just not being comfortable to ride in.

Poorly fitting saddles can cause muscle pain, decreased motor function, temporary and permanent structural changes, as well as a decreased ability to perform. Therefore, one cannot expect their horse to reach his full athletic potential with an ill-fitting saddle.

Next month – Part 2 - "Properly Fitting a Saddle"

Until next time,
Dr. Bev Gordon