



Sitting Pretty

Improve your seat
with the science of
biomechanics and
Donna Snyder-Smith.

Understanding what is meant by 'seat' is a good place to start understanding how to improve communication with the horse and be more secure when mounted. Staying aboard a horse can happen through two primary systems: grip and balance. Sometimes these systems (think different muscle groups) can overlap. Certainly if your horse should spook, jump, rear or buck, most riders would be inclined to grip its body with their legs and often, although it can lead to a bigger wreck, the rider will also impulsively try to grip the reins as well, causing punitive pressure in the horse's mouth. The good rider always attempts to ride as lightly as possible. This allows their horse the greatest amount of comfort and freedom of movement.

It isn't hard to understand that the tension present when a rider uses grip as a system for staying aboard, makes light riding impossible. So, the decision of which system to strive to perfect should not be a difficult one - it is the system of balance. Before we look at what a rider needs to do in order to ride using the system of balance, let me go one step further and refute the common belief that the system of grip works better when simply staying on is the only goal. Admittedly it will take you longer to develop the muscle coordination and strength which qualifies you as a good rider in the system of balance, however, just look at the bare back bronc rider if you are in any doubt that balance works

better than grip, even in the most extreme situations! In picture above we see a horse trying its hardest to rid itself of the rider, yet he stays with that violent action, without gripping the horse with his legs.

The question is, if the bronc rider isn't staying on by grip, just what is it that is keeping man and horse from parting company? The answer is two-fold. A combination of gravity and the use of the rider's back, abdomen and internal core muscles to insure the angle of his pelvis stays constantly aligned with his horse's shoulder, which places his seat bones in the deepest part of his horse's back - the hollow just behind the withers.

Pelvis placement

Work on the correct placement of your pelvis, and the maintenance of that placement, will be the focus of anyone who wishes to become a better rider and a more successful competitor. Freedom from unnecessary tension in the rider's body is the result of riding by balance. This also allows the horse's body to achieve its biomechanical potential.

Study the three photos of a rider's seat (pelvis) on the opposite page. The first shows a rider whose back is tense and arched, this tips the top of the rider's pelvis toward the saddle horn. In this position, the seat bones, (the lowest points on the pelvis) are angled toward the rear - counter productive for both horse and rider as the seat now opposes the forward action of the horse's hind legs leading to a bounce rather than a following of the

movement of the horse's undulating back muscles. In response, the horse's back become tense which causes shortening of stride and loss of elasticity. The rider's seat bones also create an abrasive action on the back of the horse which can cause a sensitive animal to speed up and lean against the rider's hand. Finally, since the rider's seat can not be 'deep', the communication to the horse is restricted and the rider becomes less secure in the saddle. When this happens, the rider has lost the choice of riding by balance and is forced to grip instead.

The second photo shows a rounded back posture. Now, at least, the rider's seat bones are no longer uncomfortably poking the horse's back, and the rider is able to sit a bit more deeply and more securely. However, with this sloppy posture, the rider's pelvis is still not able to be used to its fullest potential as a communication tool and if a rider allows his or her legs to drift out in front of the vertical balance line (see my column in October) there is a good chance pressure exerted by the rider's foot against the stirrup will cause their seat to be forced back against the cantle of the saddle.

In the third photo we see the correct pelvic position. The rider's pelvis lines up from top to bottom on the vertical balance line which is drawn from the rider's ear down to the rider's foot, enabling them to not only stay on the horse efficiently (with little or no muscular gripping) but also sets the stage for independent use of both hand and leg aids.

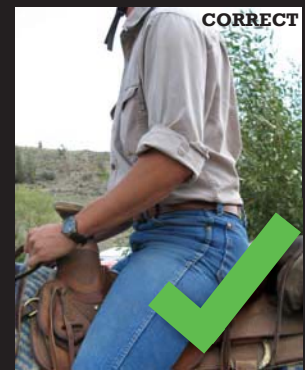
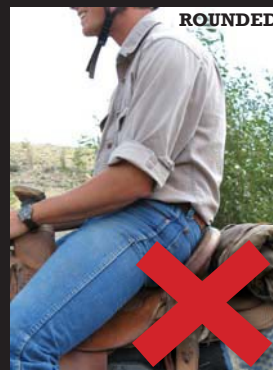
Exercise

Building upon the exercise in the last issue of *FreeRein*, designed to relax and stretch the muscles of a rider's groin and hips, the following exercise will help correct placement and alignment of the rider's pelvis.

- To begin the exercise, the rider needs to be mounted on a quiet horse that is willing to stand calmly. If you are concerned have someone hold your horse during your first few attempts at this exercise. Remove your feet from your stirrups and raise your knees up in front of you as though you were going to make them touch the saddle horn on each side simultaneously. Keep your leg folded under your body as you do this rather than allowing it to move forward towards the horse's nose as your knees are brought upward.

- With your legs out of the way, grab the saddle horn with both hands and, leaning your shoulders slightly rearward, pull on the horn until you feel your seat move toward the front of the saddle. To check to see if you've made enough of an adjustment in your seat bone placement, reach around with one hand to the small of your back and feel up and down from the top of your buttocks to about your mid back. Your back should feel flat. If you still feel an arch, your seat bones are still too far back. If, on the other hand, you've moved your pelvis forward too much, your lower back will feel rounded.

- Before moving back again, try stretching your spine up through the top



of your head, rather like you were a Giraffe. Now test your back again with your hand to see if the area of your waist feels flatter. If it is still rounded, you've over corrected; move your seat bones backward just a bit.

- After finding the correct position, slowly lower your legs to the horse's sides. This is tricky. As their legs lower, many riders experience a tendency to rock or tip their pelvis forward again, recreating the arch in their back. This is most frequently caused by tight hips which can be improved with yoga and/or doing the scissors exercise featured previously, but if you are a woman with a narrow pelvis trying to ride a wide backed horse, you may experience difficulty getting enough stretch in your hips joints to allow your thighs to fall loosely. Instead, you may end up placing them on the saddle in such a way that your knees will point more toward your horse's nose, than toward the ground, creating difficulty in finding the correct seat.

- For most riders finding and keeping the pelvic position, especially at all gaits, will

take time and practice. It will be a new experience to search for. You can speed up both your awareness and accuracy if you do the positioning exercises in a hall with mirrors. Here your eyes can help you identify when your back is straight. Check your leg placement to insure the correct vertical line of ear, shoulder, hip and ankle.

- Once you have all of your body parts in place, try riding at the walk and returning to the mirror frequently to check whether or not your body has lost its balanced alignment. When this new position becomes more comfortable and you are able to hold it for longer periods of time, it will be time to move first to a slow jog, and later to the lope. For those of you who might not have access to a mirrored hall, having a friend video tape you will allow you to review yourself but doesn't give the instant feedback of the mirrors. Last, but still of some use for providing accurate analytical feedback, are still photos of yourself both before any adjustments and afterward.

Rider Analysis

RIDER: PHILLIP AYRES

HORSE: BRANNAN (THOROUGHBRED)

DESCRIPTION: "I AM A 61 YEAR OLD, WEEKEND COWBOY & RIDE ANYTHING I CAN FIT MY WESTERN SADDLE TO"

What a great couple of photos to begin my 'riding readers' critique this month. To begin, readers will note that Mr Ayres seems to be rising to the trot, seen by the fact that his seat is slightly out of the saddle in the first photo, while he is fully seated in photo #2. This is appropriate to the situation, as Mr Ayres' horse exhibits a trot in these photos, not the slower, western variation of the same leg movement with less impulsion - the jog. That is one reason why his choice to rise is an appropriate one.

Readers will note that Mr Ayres' shoulders are slightly forward of the vertical but their position is in harmony with his horse's big trotting movement. His vertical balance line drops correctly through his body from ear to hip to heel. His toe is elevated and his heel is down. I like the relaxed position of his upper arm(s), which rest against his rib cage without tension, allowing his hands'

movements to be independent of his body. While his hand position may appear to be a bit high, it is not when we relate it to the position of the horse's head and neck. While it might be argued that if Mr Ayres lowered his hands a bit, his horse might in turn, lower his head more, I doubt this would be the case, as the horse shows other signs of being unbalanced.

Mr Ayres' upper body is straight without being stiff and while his shoulders might be a bit more square in their appearance, I would rather see a good, fluid, working position such as Mr Ayres demonstrates here, than a tense, posed, show ring type position, which, by virtue of its rigidity is less able to follow (and help) the horse.

Continuing to photo #2, readers can note that Mr Ayres' lower leg has moved a bit forward. This indicates more pressure against his stirrup than is ideal. It is true such downward pressure serves to deepen a rider's heel position but, as can be seen in this photo, it also has a strong tendency to move the rider's leg forward and thus



out of the vertical balance line. Ideally, Mr Ayres' leg should remain in the same place as it was in photo #1. This will happen when the rider allows their knee to freely flex as they descend to the saddle (in rising trot) while remembering to stretch the Achilles tendon by dropping their heel down and backward toward the horse's hind foot. Mr Ayres' saddle appears to fit him well, allowing for good rider function.

Brannan is less balanced in his trot than is ideal and his struggle is notable in the elevated use of his head and neck as a balancing tool. Thoroughbred types can make good western horses but it can take longer to develop a long legged, long striding horse's ability to lower its haunches, sit down and shift its weight more to its hindquarters - only then can it shorten its stride and 'jog'.

Remember to send in your pictures for analysis in the next issue