

ABOUT HOLLY MASON

Holly Mason lives in New England and is the author of *It's Never Too Late – to learn, to improve, to make a difference in your riding!* Her book is an overview of the biomechanics of horse and rider, and is designed to help riders understand the issues more fully. She has also produced a DVD, *Focus on Flexibility*. They are both available on her website www.dressagebydesign.com

**HOW TO...**

Improve downward transitions

International biomechanical expert and author **HOLLY MASON** explains why the rider's position is a major influence

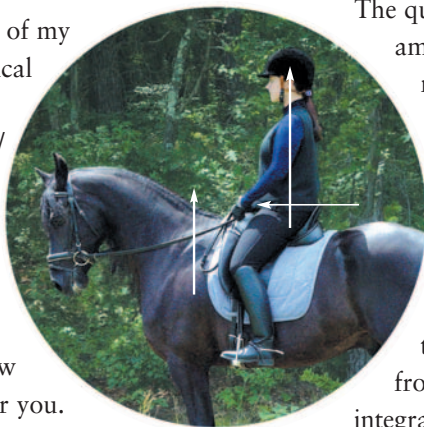
So much is written now about

“using your core” in riding or in Pilates. Unfortunately, this description is pretty broad and doesn't really embrace how we use our core or why.

The basic premise is that a controlled and stretched torso creates a “predictable mass for the horse to move through space” – this is how a professor of physiology once explained it to me.

If we are too soft, and certainly if we are crooked, the horse can't carry us as we are too much dead weight or an uneven weight. Horses are big and will technically carry us about, but in order to take your horse past First Level (novice) you better be actively helping with your position.

The hardest part of my job as a biomechanical specialist is explaining/teaching/revealing how to use the human neck to enhance your torso position and allow a horse to flow freely forward under you.



I stretch my spine and allow the horse's back to come up before my weight descends to tell the horse to completely stop moving. A correctly ridden downward transition lifts the forehead of the horse as the pelvis curls under and the joints of the hind legs elastically fold up and receive the added weight.

I see lots of “experts” who rarely address rider positions, least of all the neck. I see so many photos in books where the necks of the riders are compromised and braced forward and then I can trace a direct path to how the horse beneath them is prevented from correct motion and alignment.

UNDERSTANDING EXERCISE PHYSIOLOGY

Although training and exercise off your horse allows one to more firmly grasp your own personal anatomy, the science of movement and related concepts are central to how our bodies function as a whole.

When we create more ambidextrous movement we strengthen all our bodies systems.

The quest for greater ambidextrousness movement also tunes up our proprioception, or our sixth sense of balance. A more complete approach to our entire body, from a sensory integration perspective,

not only makes us better athletes, but it also creates superior circulation and facilitates the health of the cranial-sacral pump of the spinal fluid throughout the total length of our spines.

Our brains manage all parts of our neuromuscular system and the good news is that our neuromuscular system can always be re-educated – the science behind “use it or lose it”! Correct spinal integrity in riding is a “need to do”, not a “nice to do”... sooner or later your progress will be compromised without a tall, fully functional torso.

THE DECELERATION OF MOTION

When we ride downward transitions, the concept of deceleration is at work. My Pilates instructor, Melody Gamba, has made me aware that the correct deceleration of motion is the act of slowing down motion in a controlled manner.

Melody is also a professional dancer and, like myself, is dedicated to understanding the actual physics of moving through space in relation to gravity, so that more balanced and fluid movement can be achieved.

When we decelerate on horseback, we use “oppositional energy” to aid the horse in maintaining its balance as it goes from a faster gait to a slower gait.

The rider's role in a downward transition, or merely a

successful half halt, involves a quickly pulsed, elongation of the spine that shifts the horse's weight onto the hind legs. This momentary “retard” of the forward motion allows the

rider to decide and control the quality of the horse's next steps as they decelerate to a slower gait. Just like in music, a “retard” is a calculated slow-down, with a built-in sense that the music will then surge forward once again. The essence of a great downward transition is that the rider keeps actively riding (using their seat and pelvis to stay with the horse) and yet allows the horse's back to come up, as the hind legs come underneath.

CAUSES OF UNBALANCED TRANSITIONS

Without the complete connectedness of the human spine, the rider will definitely interfere with the horse's balance.

“**CORRECTLY CARRYING YOUR SPINE WILL SIMPLY IMPROVE YOUR OVERALL WELLBEING, AND YOUR HORSE WILL TRULY APPRECIATE IT**”

RIGHT: A well-ridden downward transition requires the rider to control deceleration effectively throughout the entire transition into a good halt.

There is a dynamic quality to staying correctly elongated in your own spine. Slight adjustments should be happening all the time in everything from simple straight lines to lateral work – in transitions, the imperatives for subtle adjustments are even greater.

Years ago, Dr Van Schaik (a native of the Netherlands) taught many of us the value of stretching to go and stretching to come back. That is, to lift your spine to become tall to make an upward transition and lift in a restraining way to transition downward.

Through the study of biomechanics, we now know why this creates a superior transition from slower to faster motion or faster motion to slower motion, as in downward transitions.

So correct postural integrity is required in riding and the best way to learn this well is to practise off your horse.

Play with the length of your spine as you stretch up, but fight the tendency to arch the back as you do, and let your rib cage pop forward. We are trying to build a kind of “muscle sandwich” for our spines between the front musculature and the back – actively keeping your rib cage back creates the opportunity for a longer spinal stretch.

Correctly carrying your spine will simply improve your overall wellbeing, and your horse will truly appreciate it, as you will improve its wellbeing and spinal health.



BELOW: This is the moment of the half halt. The half halt is a momentary transfer of the horse's weight back in order to rebalance the gait.



BELOW: Slack abdominals allow the hind legs to remain out behind and prevent the horse from decelerating correctly.

BOTTOM: The abdominal muscles pull the hind legs through, as the pelvis curls under and the back lifts. A rider with an incorrect position (either too sloppy or too rigid) will block the horse from using its abdominal muscles sufficiently and this results in abrupt or unbalanced downward transitions.

