

# EQUICISION

## **Defining Behind, At or Ahead of the Motion and Behind, At or Ahead of the Vertical.**

Are they interchangeable? I have heard them used that way. So what is the instructor trying to describe to his or her student? Is there a better phrase?

Excluding the discussion of “How one **physically** looks”, lets define each phrase from a scientific perspective and clarify their inter-relationship across the spectrum of rider skills.

The Scientific Perspective:

**Behind, At or Ahead of the Vertical:** This relates to static positioning of the riders torso posture and hence Center of Mass (CoM) to the horses posture and center of mass. When the horse is moving across a flat surface, maintaining a (more or less) horizontal posture, the riding athlete can position him or herself forward, at or behind the imaginary vertical line defining the horse’s center of mass. When the horse navigates obstacles, the riding athlete attempts to maintain him or herself over the horse’s center of mass, via a vertical posture in relation to the ground.

**Behind or Ahead of the Motion:** This relates to the riders CoM being either in time or out of time with the horses CoM. It is the degree synchronization is lacking, combined with the speed and amplitude of the riders CoM that influences rider stability. By technical definition the rider is always behind the motion of the horse. While the riding athlete provides the cue to start, change, etc the greater influence is the horse’s motion influencing the rider’s motion.

So on a continuum of skills, the riding athlete attempts to maintain his or her static posture and CoM in close a proximity to the horses as possible as the horse performs its given tasks. Riding problems arise when the riding athletes posture and hence CoM gets *out of time* with the horses CoM while performing a given task.

Thus from a technical perspective, a more descriptive phrase would involve defining how out of time the rider is with the horse.

This all leads to what riders call “Seat Stability”

Presently, there is not a definition, just a concept. I would propose this as a working definition: “The coordinated movement of all the muscles needed by the rider to maintain not only their balance on the horse, but create a balance between communication with and free movement of the horse under a variety of demands.”

And this all starts with the foot in the stirrup.....which is an all-together different discussion!