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Riding Muscles and Their Effect on the Aids

Regardless of the discipline, most accomplished riders have several things in common. 1) they have mastered the ability to relax specific muscles while contracting others; 2) they have learned to apply the aids independently, that is, to utilize one part of their body while doing something completely different with another; and 3) they have learned to recruit their core muscles to stabilize themselves so as to free-up their ability to *infinitely adapt* to the situation at hand. These abilities combine to form the basic foundation necessary to effectively execute the aids. And we should always keep them in mind when we train from the instant we swing a leg over our horse until the time we dismount. Developing muscular control is inherently necessary for skillful riding

All good riders should become familiar with the ‘major’ muscles we use to ride our horses. We can separate these into two groups: leg muscles and core muscles. Today’s discussion will focus on the leg muscles.

The Riding Muscles of the Leg

Because most riders do not have an extensive background in anatomy, you can best understand the muscles you use to ride your horse by remembering this: leg muscles which bend (flex) the knee and rotate leg inward or outward are the most important muscles in controlling your leg aids, and are referred to as the “riding muscles”. (Illustration A & B). There are four separate muscles which are the primary leg “flexors” and “rotators”. Fortunately, it is possible to use them each to a varying degree. Unfortunately, it is more natural to use them all together with the same amount of contraction in a defensive manner. This causes our leg to turn outward and shorten, which results in gripping the horse and interfering with our balance. Look at the two pictures of a dressage rider, figures 1 & 2. (We could have just as easily used a hunter-jumper rider as our model since riders of all disciplines exhibit these same problems) The position in figure 1, while very incorrect, is actually more natural for us. It is a common defensive riding position often seen in inexperienced riders because they haven’t yet learned to properly relax their riding muscles, especially the riding muscle in the *front* of the leg (called the sartorius muscle, see Illustration A). Since this muscle pulls the knee up and rotates it outward, can you see the obvious flaws in the position in figure 1? Here are a few hints: shortened leg turned out foot, less leg contact with the horse, jammed hip and knee, rider’s center of balance not in line with her leg, inefficient use of the leg aid, and very obviously, makes quite an unattractive picture. Now look at fig.2. Can you see how the tight muscles on the back of the thigh (Illustration B) have over-flexed the knee, increasing the bend and causing the leg to ride up behind the rider?

Now, let's look at figure 3. Notice the relaxation of the riding muscles allowing the leg to drop in a soft, quiet manner. The relaxed sartorius muscle on the front of the thigh has allowed the leg to drop and rotate inward putting it closer to the horse.

The muscles on the *back* of the thigh have relaxed as well, and since the job of these hamstring muscles is to *bend* the knee, notice how relaxing them allows the knee to open and the heel to drop. This allows the rider the ability to follow the motion of the saddle and not interfere with the horse's movement – a pre-requisite for good riding. **The trick here is to develop, through proper training, the ability to use these major riding muscles in a supple, *relaxed* manner, and to develop the capability to employ each individual muscle to a varying degree.**

Naturally, this is easier said than done. Forcing your legs into the “optimal” leg position leads to a stiff ineffective riding. Repetitive training is necessary to develop muscle memory, suppleness, control, and of course, muscle relaxation.

Relaxation vs. Gripping

It is important to understand that relaxing the muscle does not mean the same thing as ‘not using’ the muscle. You can easily understand this when you observe inexperienced riders trying to learn to sit the trot. Look at these two common scenarios: if they grip and tighten their muscles, they lose the ability to follow the horse's movement and they bounce around on top of their horse. If they totally relax their muscles, they lose the influence of their aids and they still bounce around on top of their horse. **The concept of “relaxed” muscles refers to *supple, tension-free* muscles contracting in the correct proportions to each other so as to exert an effective, but specific, influence on the horse.** And, depending upon the specific discipline ridden, riders will necessarily use their riding muscles in different proportions. For example, developing strong “adductor muscles” (a muscle on the inside top of the inside thigh used to squeeze thighs together and stabilize the pelvis) gives stability to jumper riders. But for dressage riders, overuse of this muscle will inhibit necessary movement of their hips and as a result have a negative influence on their aids.

That being said, regardless of the job you want your horse to do, tightness and tension of the riding muscles will interfere with performance. The key to effective use of the riding muscles is to learn to use them in a supple, tension-free manner, and with ‘selective’ muscle contraction. This allows for independence of the aids, quietness of body and mind, and freedom of movement for your horse. Now who doesn't want that?

Until next time,

Dr. Bev Gordon