

## Your Horse's Neck

By: Kathy Duncan

If you have ever lifted weights or worked with exercise bands, you know that resistance is what creates larger and stronger muscles. If you are a human weight lifter, you are performing these exercises deliberately with strength in mind. Hypertrophy is the word used to describe the buildup of muscle size due to resistance. Resistance is a perfect exercise plan if you intend to grow larger, stronger muscles.

When a horse is consistently resisting against a tie-down or the reins, muscle and strength can be gained by accident. You may have seen a horse in a tie-down that has large knobs of muscle behind his ears. This is obviously not from strength training in the weight room. This is from trying to raise his head against the resistance of his tie-down.

When muscles become bulky and strong, they lose their flexibility and become too bulky to move through their full range of motion. This problem is not only found in the top of the neck. It can be found any where in the body, but for the sake of this article, we are dealing only with the neck.

Another chronic problem with resistance is from an improper bit, or a heavy handed reiner where a horse is pulling away and tossing his head around whenever he is tacked up. Your horse's neck can become over-developed for many reasons. If you were to grit your teeth, place your hands on your neck to feel how your neck muscles respond. They will become rigid and non flexible.

Because of the resistance problems mentioned, along with a laundry list of others, many horses are walking around with very stiff, immobile necks. It is a rider's job to not only remove the cause, but to find a solution. There is nothing that bothers me more than to see a horse refuse to turn, so the rider runs him through the same move over and over to make the horse follow directions, or even worse, tie his nose to his stirrup to "teach the SOB to do what he's told." I don't know your horse, but I'm pretty sure that tying his nose to his stirrup will only lead to more resistance, more hypertrophy, and more refusal.

This hypertrophy will occur where the resistance occurs. For example, it is not unusual for the left side of a calf roping horse's neck to be larger and more developed than the right side. When a calf roping horse is stabilizing against a calf on the right, his left shoulder becomes involved, as well. So, the larger side will become less flexible, and the smaller side will naturally become the weaker side.

When you ask this horse to turn to the right and he cannot, it could be that he has lost flexibility in the left side of his neck, or the weaker side cannot fire properly. The explanation for this is that each movement has dual components and requires two sets of muscles to accomplish the one desired movement.

While one set of muscles is contracting (shortening) to flex the neck, the opposing set of muscles are releasing (allowing them to lengthen) so that the desired movement can occur. The muscle or muscle group that shortens are called the Prime Movers, or Agonist, and the opposing group or passive muscles are called the Antagonists. In the case of the neck, just picture the reins. When one side is pulled to turn the neck, the opposite side is loosened causing the neck to turn, and allowing the movement to occur.

Proprioception is the term used to describe the body's sense of position. As the body moves quickly, the brain, nervous system, and muscles are constantly communicating and allowing this muscle exchange to occur. Every muscle and tendon contain certain signal organs that communicate with the brain allowing this body's sense of position to occur.

In the event that the body is balanced and there are no intrinsic factors preventing a smooth transition of alternate movements, a healthy horse can have a wonderful and smooth performance. Once there is tension or injury in one of the components, stiffness, pain, and refusal can occur. By yanking or punishing a horse that cannot bend his neck, you are assuming that this is a behavioral issue, which might be an incorrect assumption.

When you are in your saddle looking down at the neck and shoulders, you can sometimes visually witness an imbalance in these areas. If your horse is having problems with stiffness, I recommend consulting with your veterinarian, or an experienced body worker that can feel the muscles for tension or swelling, and possibly rectify the problem without undue force. Quite often, manual therapy, stretching, or a balanced exercise program can rehabilitate your horse back to a healthy, relaxed, non-resistant competitor.