

**MY HORSE SEEMS TO HAVE HIS RIGHT HAND INDICATOR ON AND WE ARE NOT TURNING!**  
**Crooked Tail Considerations by Debranne Pattillo, MEEBW**  
**Equinology CEO and Founder**



Most people who have owned an Arabian horse will tell you their horse has always held their tail to one side and they have done it since birth; even more when excited. However, you need to look closer when a horse that has always had a centered tail begins carrying it to one side or begins clamping the tail. The tail is a continuation of the horse's backbone and is a strong indicator when things are not quite right.

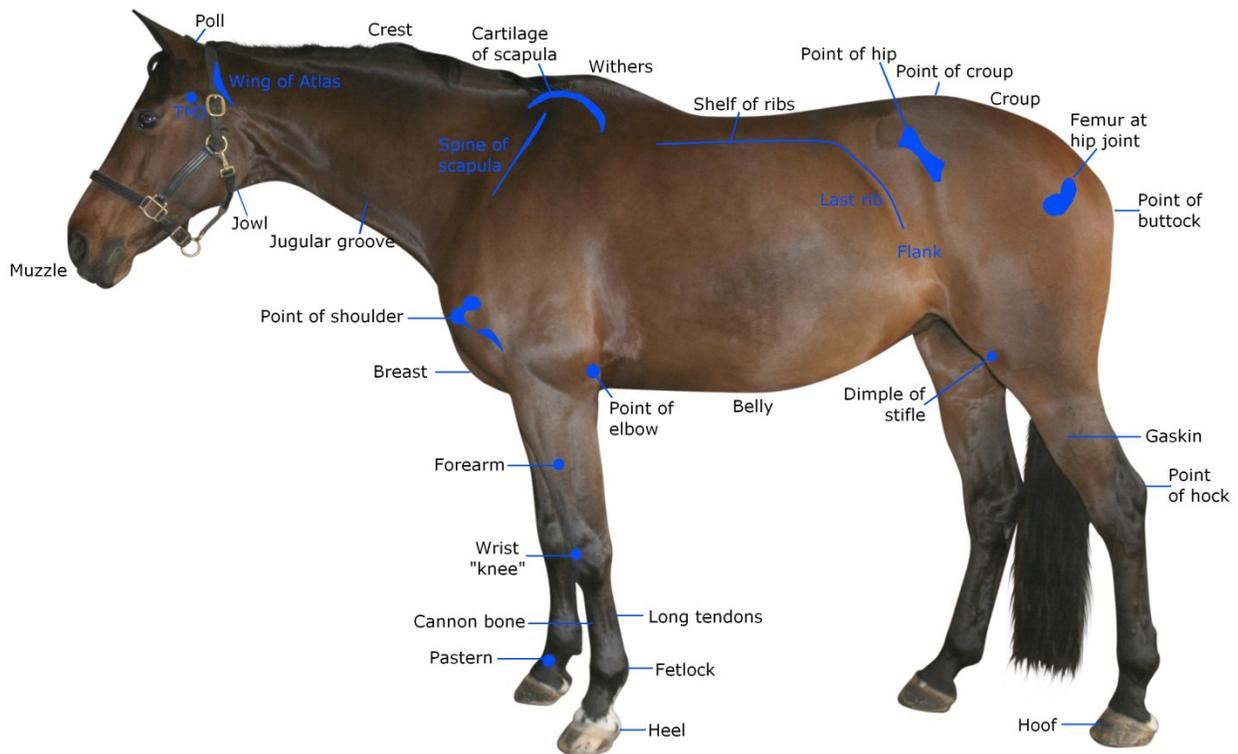
You need to be able to appreciate what is normal for your horse. Let your horse know you are moving to the hind end. Stand off to one side out of harm's way and hold on to the end of the tail hair; it will make the letter "U". Pretend you are about to start swinging a rope for "jump rope" but don't let it make the full circle. Instead just let it swing right to left. Place both open hands under the tail bone close to the body and rotate it in both directions slowly. Remember not to close your hands! If your horse clamps down, go back to the swinging until that move is accepted.

There are numerous reasons for a tail held to one side. A spinal misalignment, an injury, restrictions to any of the soft tissues, a reproductive concern or a lame limb can be one of the many issues. If a horse is not bearing equal weight on a limb in a unilateral (one sided) issue the horse tends to rest that limb. In resting that limb it swings the pelvis forward and points the sacral (croup) and caudal (tail) bones towards that limb. Try it for yourself. Put your hands behind your back; hold your hands against your spine in an upside down "prayer" fashion. Now, lift your heel to offload your leg so your pelvis of that side moves forward and you will see that your fingers point to that leg. It doesn't take long for this adaptation of posture to show up and begin compensatory issues.

Some of the other muscles that you need to consider are two of the hamstrings; the semimembranosus and the semitendinosus. Horses are a bit different than us and have attachments to the spine; with 2 strong attachments to the first two tail bones. If one of these hamstrings are tight and when they are in this shortened state, they will incline those bones to the restricted side. Voila, crooked tail.

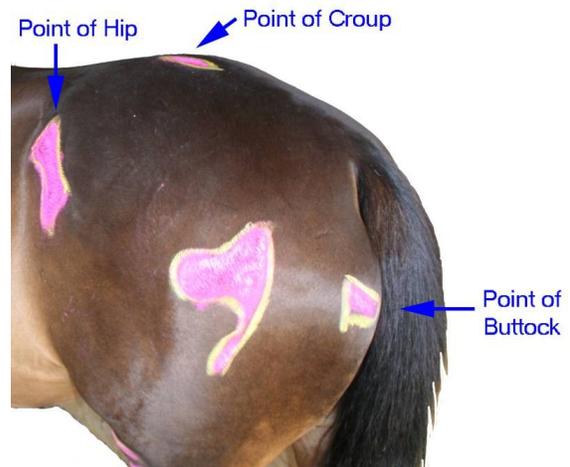
As always, it goes without saying; if this is a new condition and if the horse is uncomfortable or has any gait deficit, seek the advice of your veterinarian before you try these moves.

We plan to have some footage up on You Tube on the Equinology Channel to highlight some moves of our EQ75 introduction course which is suitable for owners, trainers and those wishing to explore the field of equine body work. This course information can be found at: <http://www.equinology.com/info/course.asp?courseid=45>. If you like our presentation here, you will love our course. There are also stretches on that channel as well as a video for finding the surface anatomy below. For now, here are some text and photos to point you in the right direction. The TTouch® work and the equine myofascial release approach (MFR) are also fabulous for addressing these areas of the horse.



EXTERNAL PARTS OF THE HORSE

First you will need to find the point of buttocks (tuber ishium). Use these photos to help you.



## TECHNIQUES FOR THE HAMS RINGS

### Working the hamstrings:

**Prep:** Face rearward with a haunch check on and use a flat hand to stroke from the top of the tail down towards the hock. It should be your outside hand.



**Compress:** Face forward with the haunch crosscheck still on. Start right next to the spine and on the back edge of the racing muscle line. Loose-fist compress this hamstring (semitendinosus) at least three times. If you can't reach the vertebral head (the top portion), use palmar compression but you should switch to the loose fist compression each time after you pass the point of buttock. Otherwise your wrist will bend backwards (dorsiflexion) which can make it sore. Spend some time here on this muscle.

**Drag:** Concentrate on the lower portion of this muscle and the hamstring in front of it (biceps femoris) with some loose fist drags. Start just below the point of buttock and radiate outward with the drag.

**Working the inside hamstring:** Repeat the long strokes down the inside of the thigh. Fingertip compress and chuck (lift) starting at the top, continuing down this general area which is the blue muscle in this particular photo (*semimembranosus muscle; one of the hamstrings*). When you get to the lower portion of this muscle another covers it which is the light purple *gracilis muscle*. While here, carefully rake the muscle with your finger pads.



### Cross-fiber massage on the semimembranosus

Apply cross-fiber massage with your finger pads and palm on the entire *semimembranosus* muscle.



### Muscle Facts

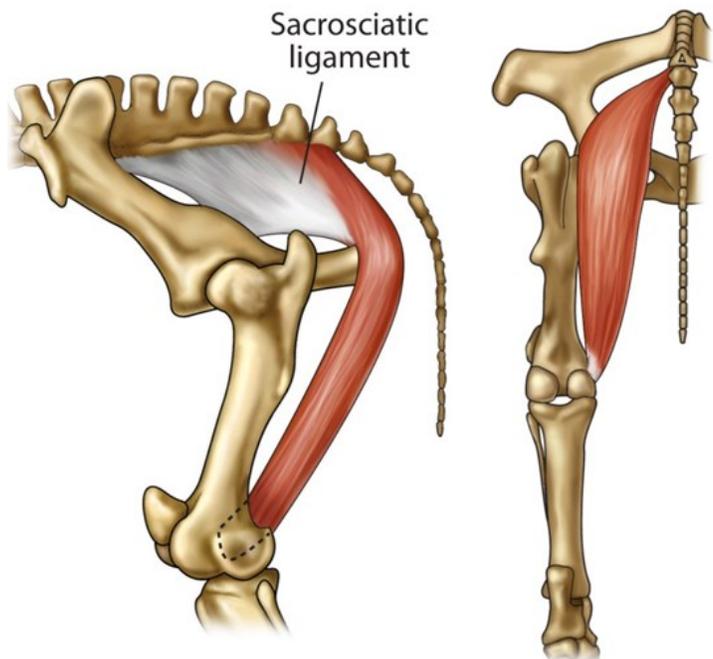
#### SEMIMEMBRANOSUS

**ORIGIN:** The long vertebral head of this muscle begins on the ventral surface of the first two caudal vertebrae and on the caudal boarder of the **sacrosciatic ligament**.\* The short ischiatic head begins on the ventral surface of the tuber ischii.

**INSERTION:** It ends on the medial epicondyle of the femur just caudal to the medial collateral ligament.

**FUNCTION:** When active it extends the hip joint and adducts the hindlimb. It retracts the hindlimb. "The hamstring muscles flex the stifle joint during swing but constrain extension during the first half of stance due to the antagonistic action of rectus femoris and the cranial position of the vertical ground reaction force vector" (Clayton et al. 2001).

**STRUCTURE:** This muscle has two heads of origin and is three sided. It lies medially on the semitendinosus and the gastrocnemius. The long head is very small above the ischiatic tuberosity, much of it made up by the sacrosciatic



ligament. This muscle can interdigitate with the adjacent hamstrings.

**INNERVATION:** Ischiatic nerve.

**REACTION:** The horse will tighten the leg, step towards you, or tuck under. Do not confuse the taut edge of the sacrosciatic ligament as tension at the origin.

**PROBLEMS:** If the muscle is significantly shortened the pelvis may present an outflare/inflare issue (the tuber coxae (point of hip) is further away from the vertebral column (spinal bones) and tuber ischii (point of buttock) is closer to the vertebral column when comparing sides). A shortened cranial phase in the hindlimb may be noted. The limb will swing to the midline more than that the other limb. Due to its relationship with the sacrosciatic ligament, it may appear as a back problem.

\* The **sacrosciatic ligament** is a large sheet of connective tissue that completes the lateral wall of the pelvis. It originates from the lateral border of the sacrum and the first two caudal vertebrae. It spans the space between these, the ischiatic spine and the tuber ischii. It blends with the dorsal sacroiliac ligament at edge of the sacrum. This structure has had many names including the sacro-spino-tuberous ligament and the broad sacrotuberous ligament. The sacrosciatic ligament remains a convenient abbreviation.

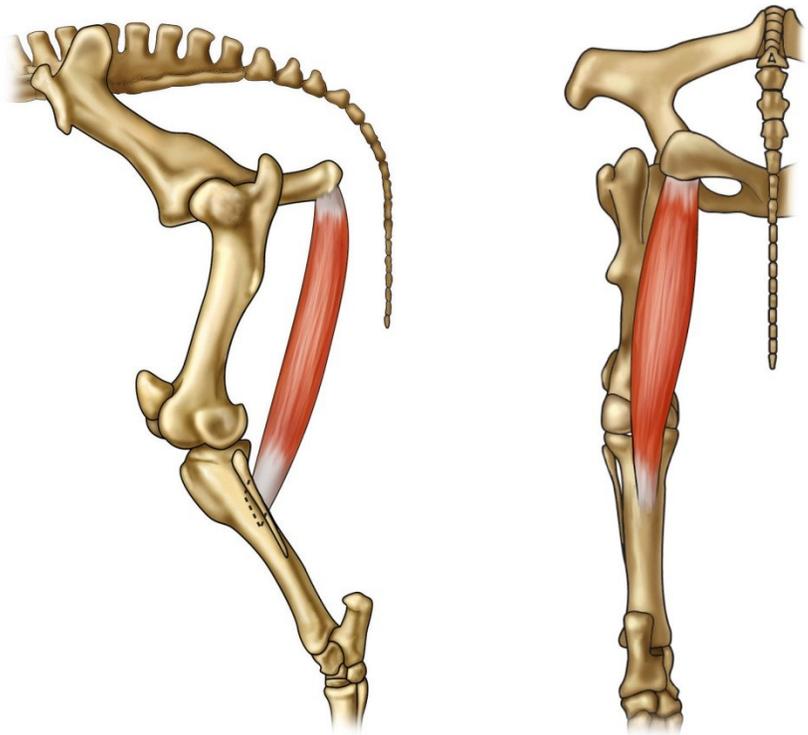
### SEMITENDINOSUS

**ORIGIN:** The vertebral head, also known as the long head, can extend as far forward as the last sacral vertebra but typically arises from the transverse processes of the first two caudal vertebrae. Fibers also associate with the **sacrosciatic ligament**.\* The short ischiatic head originates from the ventral surface of the tuber ischii.

**INSERTION:** Some of this muscle inserts on the cranial margin of the tibia (the sharp crest on the cranial surface at the proximal third). A larger part blends with the fascia of the leg (crural fascia) and the remainder unites with the biceps femoris tendon running to the calcaneal tuberosity.

**FUNCTION:** When active it extends the hip and the hock joints. It also adducts and retracts the hindlimb. "The hamstring muscles flex the stifle joint during swing but constrain extension during the first half of stance due to the antagonistic action of rectus femoris and the cranial position of the vertical ground reaction force vector" (Clayton et al. 2001).

**STRUCTURE:** This muscle has



two heads. The long head is small above the ischiatic tuberosity and here it fuses with the sacrosciatic ligament. This muscle can interdigitate with the adjacent hamstrings.

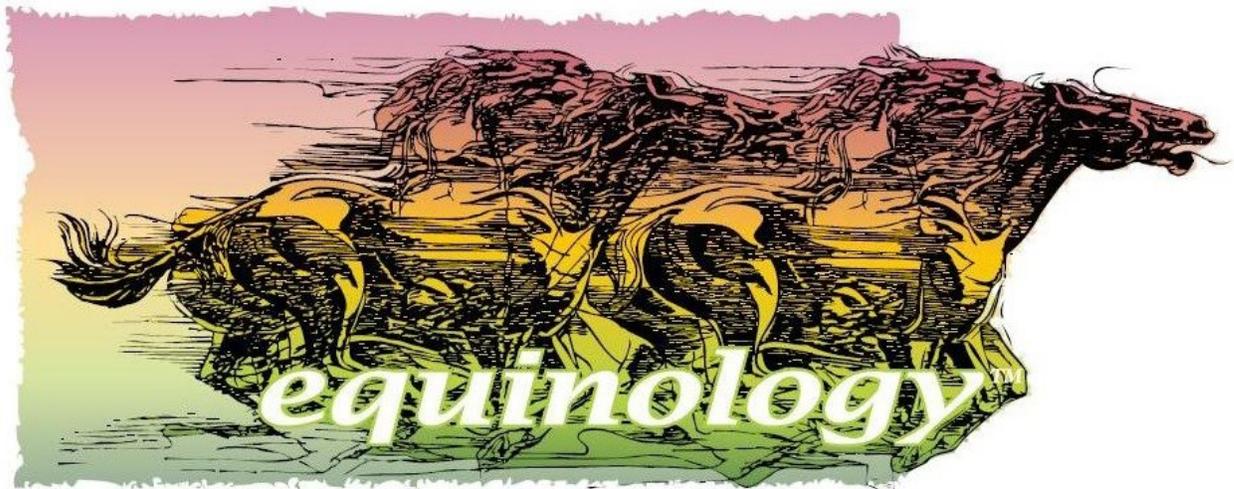
A bursa is often present where the long head crosses the tuber ischii. The muscle travels ventrally from the tuber ischii, then turns a little medially before terminating on a wide tendon. The vertebral head is quite prominent in the lighter Thoroughbreds and Arab type breeds.

**INNERVATION:** Caudal and ischiatic nerves.

**REACTION:** The horse will tighten the leg, step towards you, or tuck under upon palpation or pressure.

**PROBLEMS:** The cranial phase of the stride is restricted with sustained shortening. The horse may find it difficult to lower the hind end for collected maneuvers in higher level dressage, working inclines, starting out of a gate and jumping. Due to its relationship with the sacrosciatic ligament, it may appear as a back problem. Horse will track closer to the midline and the toe will point laterally. In cases of a fibrotic myopathy at the insertion, the horse may have a distinct "goose step" where the cranial phase is not only shortened but the hoof lands more heavily because it retracts just before hitting the ground. The semitendinosus is a hamstring and injuries here are susceptible to reinjury.

\* See description of the sacrosciatic ligament under the semimembranosus listing.



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