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PROBLEMS IN HORSES


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We talk to specialist equine physiotherapist Beth Shaw about how she uses her so-called Equine Transeva Technique to pinpoint and treat muscular and skeletal injuries

Equine back problems are common, particularly in sport and performance horses. Equine health workers have traced the source of many of the injuries to the iliopsoas muscle in the lumber region of a horse's back. With hundreds of case studies to her name, Beth Shaw's work has earned the respect of fellow

physiotherapists, veterinarians, farriers and riders. *HQ* caught up with her to find out more about the iliopsoas muscle and what her work is all about.

In many cases the signs are not apparent, being more subtle and frequently confused with those caused

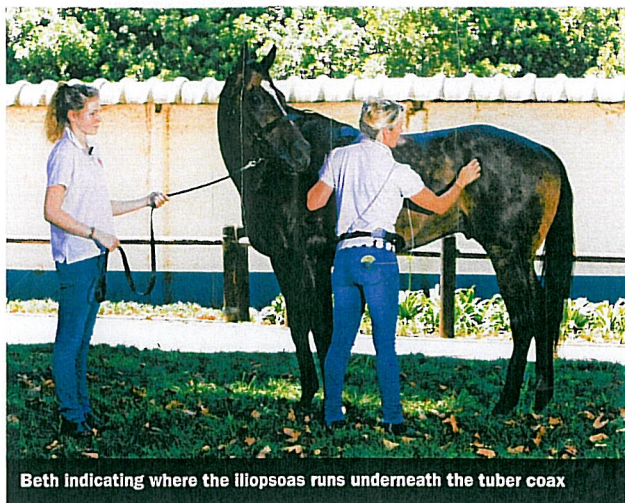


**SOME OF THE MORE
OBVIOUS SYMPTOMS**

- A decline in performance.
- Reluctance to being saddled and shod.
- Sensitivity to touch or pressure on the back.
- Behavioural changes. In extreme cases rearing or bucking.

Specialist
equine
physiotherapist
Beth Shaw
pointing out the
region where
the iliopectineus
inserts into the
femur

Diagram of the
iliopectineus muscle



Beth indicating where the iliopsoas runs underneath the tuber coxa



Beth Shaw and Birgit Schroeder identifying sensitivity down the lumbar area and iliopsoas attachments into the lumber

by other problems in a horse's body. This can be frustrating as the symptoms linger, negatively affecting a horse's performance and behaviour.

HORSES HIDE PAIN

Interestingly, by far the most common reason for presentation of a back problem is poor

performance, rather than pain. Being animals of flight, horses are designed to hide pain, lameness and illness as long as possible to avoid being targeted by predators in the wild. The situation is further compounded by the fact that while back pain is poorly understood in human medicine, equine back pain is more difficult to comprehend,

diagnose and treat, as the anatomy of the equine back is more complicated.

A HORSE'S ANATOMY

Massive muscles and thick ligaments attach adjacent vertebrae to one another, the skull, and the vertebral column to the limbs. In addition, there are multiple intersecting sheets of extremely tough and thick connective tissue surrounding the spine. Nerve roots exit from the spinal cord through small spaces between and in the vertebrae and find their course between the sliding planes of connective tissues. Vertebrae have spines of bone that project upward or outward, to which the back muscles attach. Only the very tips of these spines can be felt along the horse's back. The spinal cord is located far deeper in the back than most horse owners think.

WHAT IS THE ILIOPSOAS?

The commonly referred to 'bow and string' theory indicates that the horse's spine acts like a bow that can be flexed by contraction of the muscles nestled below the spine. The primary or core muscles in the back effecting motion are psoas minor, psoas major and iliacus. They are deep-seated, skeletal muscles. They all form part of what is known as the iliopsoas. The iliopsoas tilts the pelvis forward, brings the back up and flexes the hip joint, all of which engage the hind limb under the horse's body.

THE MOST IMPORTANT MUSCLE

Beth Shaw, the founder of ETT, the Equine Transeva Technique, believes the majority of back problems start from an injury to the iliopsoas. "The iliopsoas is probably the most important muscle of the equine athlete," says Beth. "If the iliopsoas is not functioning properly, horses are not able to engage their hindquarters correctly. They may carry on performing the task asked of

THE ILIOPSOAS THEORY IN A NUTSHELL

The Iliopsoas Theory (tm) explains that the weakness in the near hind will cause the off fore to overwork. This causes tension in the shoulder and pressure running all the way up the neck and into the jaw. The result is a horse being stiff to the right when worked or even lameness in the diagonal foreleg. ETT often experiences a horse who is stiff to the right and 'locked' in the right jaw. In the majority of cases, the stiffness originates from an injury or weakness to the near hind iliopsoas.

The basis of the Iliopsoas Theory with regard to the near side is if the horse is dropping the near hind, there will be stiffness to the right when working. Signs of near side iliopsoas injury or strain include the following:

Dressage horses – near hind iliopsoas weakness or injury

- Nose will tilt to the left.
- Stiffness in the offside jaw.

- Right lead canter more difficult.
- Leg yield to the right more difficult.
- Half pass to the left more difficult.
- In the counter-bend to the left on a serpentine, the horse will be uncomfortable when there is a change in diagonal.

Showjumping horses

- As with dressage horses
- The following could manifest in either near hind or off hind:
- Stops more when jumping off a certain lead or out of a certain turn.
 - Stops more often in the second round of a competition, when tired.
 - Struggles to change canter leads.
 - Fly jumps.

Racehorses – near hind or off hind iliopsoas

- Cold backed.
- Only works on one canter

- lead and struggles to change legs.
- Struggles with a certain bend when racing.
- Doesn't change pace with the gallop.
- Fly jumps.
- Problems in the starting gates.

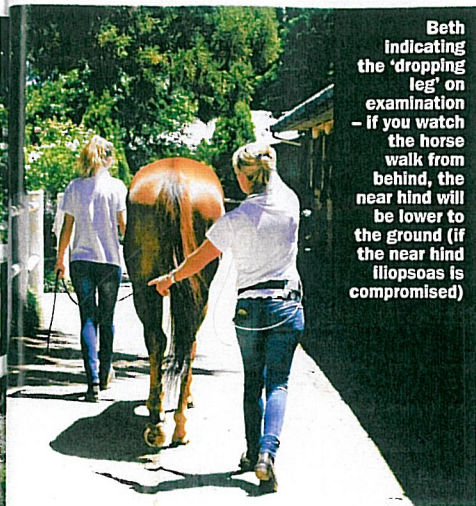
Polo ponies – near hind or off hind iliopsoas

- Reluctance to go onto the polo field.
- Preference for going in one direction only.
- Fly jumps.
- Resistance in the mouth or even 'runs through the bridle'.
- Cold backed.
- As with other disciplines above.

Breeding horses, stallions – near hind or off hind iliopsoas

- Difficulty in mounting a mare.
- Takes a long time to cover.

Beth indicating the 'dropping leg' on examination - If you watch the horse walk from behind, the near hind will be lower to the ground (if the near hind iliopsoas is compromised)



them because by nature horses do try to please." This in its own presents two problems. The first is the lack of correct engagement, and the second that of compensation.

- Lack of correct engagement, in any equine discipline, puts undue stress onto the last few vertebrae of the thoracic (chest) area, the thoracic lumbar band, the lumbar and the stifle.
- "When the iliopsoas is injured or weakened, the compensatory effects manifest in the compromised action of the other muscles in the back and hindquarter, as well as the diagonal foreleg," explains Beth. Compensation will have a detrimental effect on the horse's natural gait, natural talent and soundness, all of which affects performance. However, treating the symptoms without identifying and dealing with the underlying iliopsoas pain, more often than not only yields short-term results and soundness.

MAIN CULPRIT

At the North American Veterinary Conference in December 2007, research was presented to delegates that proved the iliopsoas muscle as the main culprit of back and neck pain in horses. It is of interest to note that this theory isn't just confined to horses, but humans and canines as well. The iliopsoas is equivalent to the groin muscle in humans. Beth says: "Have you ever met someone who has pulled a groin muscle? A human with a pulled groin muscle will battle to walk or even roll over in bed! Yet horses with groin injuries often go undetected." The reasons are:

- The iliopsoas is so deep-seated and when injured it is difficult to detect without ETT.
- The compensatory system of the equine begins immediately, masking the source of the pain.

As with dogs, research undertaken by Peter and Faith Lotsikas in the United States yielded similar

results. Poor performance in very active and sporting dogs was often traced back to injuries and strains to the iliopsoas muscle.

SA RACEHORSES

In South Africa, groundbreaking work on the iliopsoas muscle was started by the renowned Winks Greene. During the '80s and '90s, she achieved great success treating racehorses from the yards of Peter Kannemeyer and legendary trainer Terrance Millard, among others. The 1985 Rothmans July Handicap winner, Gondolier, was one of her patients. In her later years Winks Greene passed her work on to Beth Shaw. Beth has combined her own work with Winks Greene's fundamental theories to form the Equine Transeva Technique.

TWISTING OF OPPOSITE LIMBS

Equine Transeva Technique (ETT) states that without the correct and natural action of the iliopsoas, horses cannot round their backs or bring their hindquarters underneath them. Hundreds of case studies by Winks, Beth and ETT have shown that when the iliopsoas muscle is injured or strained, the opposite hindquarter twists, taking on more of the body's work, and causing secondary injuries or strains to the gluteus muscles, hip and stifle. Problems also commonly manifest in the opposite forelimb, neck and jaw.

THE 'DROPPING LEG'

When Beth and her ETT evaluate horses for an iliopsoas injury, she looks for the 'dropping leg'. Says Beth: "In the case of a near hind iliopsoas being compromised, the near hind leg will be slower to come forward than the off hind. If you watch the horse walk from behind, the near hind will be lower to the ground in his movement."

When the near hind is weak to lift the leg and hence weak to create impulsion, the pelvic structure compensates the way it functions in order to find an alternative way of moving the horse forward. The off hind invariably swings slightly outwards as the horse steps forward, causing the gluteus medius to overwork (gluteal muscles are situated on the outer surface of the pelvis). The hamstrings work less because there is less backward swing of the leg. This is due to the pelvis being moved to the side to compensate for the weak iliopsoas on the near hind. Beth explains:

BETH SHAW AND EQUINE TRANSEVA TECHNIQUE – ETT

Beth Shaw is a BSc graduate from the University of Vermont, USA. She settled in South Africa 20 years ago. Beth's phenomenal success and highly respected work is attributed to the intensive training she received from Winks Greene, a legend and pioneer of equine physiotherapy. Beth is the founder and owner of the Equine Transeva Technique. This technique pinpoints and treats muscular and skeletal injuries in the equine athlete. Using ETT her goal is 'Perfecting the Equine Athlete'. Beth works with the rider, farrier and vet to make the equine athlete the best they can be. She is privileged to work on some of the top racehorses in the country, with a string of graded winners behind her name. In 2012, her team was involved with winning both the Durban Vodacom July and the Gold Cup. Her ETT work also encompasses high-end sport horses, with many national titles in the disciplines of dressage, showjumping, eventing, equitation and showing.

Beth and her assistant Birgit Schroder treat over 250 horse patients a month. Beth runs BSET Academy from her farm in Karkloof, KZN. BSET Academy offers a certified course in Fundamental Equine Practices. On completion of the course, students can continue studying through BSET Academy and become certified in ETT. Some of her top students are working in the USA and the UK. Abigail Lewis is the only certified ETT practitioner in the UK and is already attaining wonderful results on some of the UK's top eventing horses. For more information, visit www.bsetacademy.co.za.

"This is the uncomfortable movement a rider feels when they change diagonals in the trot." In time, from overuse and incorrect movement, the gluteal muscles lose their elasticity and correct tone. In the long term, movement of the hock and stifle may be negatively affected. Beth: "Don't forget that muscle controls the movement of joints. If the muscles are not functioning correctly, there will be strain on the joints." 🐾