

# KISSING SPINES

by Wendy Elks, with Dr Ian Bidstrup



*Tight girths can also predispose a horse to back pain*

Kissing spines is a painful condition otherwise known as overriding dorsal spinous processes, most often brought about by poor posture causing the vertical protuberances of each spinal vertebra to rub together, leading to pain and swelling.

The signs of back pain in a horse can be wide ranging, and unfortunately for the horse they are often ignored. A horse that steps away when approached with the saddle, swishes its tail, is 'girthy' or exhibits other signs of reluctance or sourness prior to riding, is almost certainly anticipating back pain. When being ridden, poor performance, loss of movement, resistance, and behaviours such as 'humping', pigrooting, laying back the ears, etc, are further signs. Attempting to 'ride the horse through' such resistances may lead to explosive behaviours like bucking and rearing as the horse attempts to rid itself of its perceived primary cause of discomfort – the rider.

A horse should not be punished for these behaviours, but rather understood and helped. It is very important that such symptoms are thoroughly investigated, for both rider safety and the horse's wellbeing.

## Veterinary Research

It may surprise many to hear that kissing spines are very common. Veterinary research in the late 1990s looking into this problem revealed evidence of kissing spines in around 90% of horses autopsied. Many of these horses were probably living with their problems without symptoms of pain.

## Signs of Kissing Spines

Horses with kissing spine pain tend to tighten and tense their backs under the weight of the rider. This results in a hard, stiff back that has little ability to side-bend. Thus performance deteriorates, and the horse feels uncomfortable to ride. Saddle fit is affected detrimentally, increasing the likelihood of back pain becoming worse.

The pain from the kissing spines is concentrated in the midline of the back, under the saddle, with the saddle seat area being most commonly affected. If the painful structures are jarred suddenly by a rider landing heavily on the horse's back, or by the horse tripping, it may suddenly go into a fit of bucking or pigrooting.

Veterinary diagnosis of kissing spines generally starts with



NORMAL SPINE



KISSING SPINE

Palpation, followed by confirmation with a number of tests. Local anaesthetic is injected in between the tips of the vertebrae suspected of painfully kissing, to see if the signs of soreness are eliminated by this test. Diagnostic imaging including radiography, thermography, diagnostic ultrasound and bone scans may also be used to confirm the diagnosis, especially where surgical treatment is being contemplated. Each involves considerable expense, especially the bone scan.

SpinalVet veterinarian Dr Bidstrup says that, in many cases, much can be done before such expense may be necessary. He and colleagues of the Australian Veterinary Chiropractic Association believe kissing spines are just one part of a complex postural problem, and in most cases are readily treatable by taking a whole-horse approach. In his veterinary practice, where he primarily treats horses presented because of spinal pain, Ian estimates that over 50% of horses he sees have significant pain associated with active kissing spines, some of them severely so.

"Veterinarians, equine therapists such as myotherapists, even horse owners can use their fingers to check for signs of soreness that indicate pain from kissing spines. The more they know about horse anatomy and responses to pain, and the more horses they examine, the more kissing spine pain they will recognise. It is very common! The area of the midline under the saddle is the part to check, concentrating on the base of the wither and the saddle seat. First, gentle finger pressure is used, running the length of the spine, from the wither base to the back of where the saddle would sit. This is repeated with progressively increasing pressure. Skin quivering, muscles tightening or twitching and the

*Continued*

## Kissing Spines continued...

horse moving away from the pressure at localised points are all indications of possible kissing spine pain.”

### Treatment

Pain from kissing spines can be alleviated by rest, and very prolonged periods of rest may see the problem resolve. “But many people are too impatient to select this course of action,” says Dr Bidstrup. “And without dealing with the causes, the problem is very prone to re-occurrence. Ridden exercise of affected horses coming back into work after a period of rest is quite risky, as the dropping of the rest-weakened back merely encourages the problem to return.”

In conventional veterinary practice, surgery, in combination with physiotherapy based on massage and exercises is often considered the ultimate solution. Basically, the bony tip of every second vertebra of the affected area is surgically resected. When done in specialised equine surgical facilities, the complication rate of this surgery is low. Once operated on, horses are put on a course of anti-inflammatory drugs and spelled. However surgery is expensive, and generally reserved for top competition horses that are young enough to justify the expense and time out of work.

The kissing spine pain of some horses settles reasonably well with a more conservative veterinary approach of cortisone injections into the spine, instead of surgery. Expert attention to saddle fit is also particularly important in both approaches. The cortisone has to be injected under sterile conditions and even then can result in nasty back infections in a small number of cases.

For the more affected horses, many simply end up prematurely retired. This is why a diagnosis of kissing spines often means the end of a horse’s career.

Many equine spinal therapists treat kissing spines quite successfully by tending to the underlying postural causes. Ian’s approach has concentrated on treating spinal pain with a combination of veterinary chiropractic, acupuncture, correction of saddle fit, attention to hoof and mouth soreness, and exercises to improve posture. This approach by itself has been very successful in alleviating kissing spine pain.

“Horses with bad to severe kissing spine pain have tended to need more repeat visits than average. That was, up until another treatment was added: interspinous dextrose prolotherapy. This treatment (used for humans) was adopted from American Osteopaths (who are also qualified as MDs, unlike general Osteopaths in Australia). Dextrose prolotherapy involves the injection of a mixture of local anaesthetic and concentrated dextrose (a form of glucose) into the space between the tips of the vertebrae which are kissing. The local anaesthetic turns off the spinal pain, both breaking the recurring loop of pain that the brain perceives, while at the same time helping to confirm the diagnosis of back pain from kissing spines. The dextrose has also been shown to cause a release of growth factors that both stimulate healing and appear to ‘turn off’ pain.

### Poor Posture

“As mentioned, poor posture is largely to blame for the development of kissing spines. Causes of poor posture are

*While causes of kissing spines are manifold, things such as sore feet, backs or mouths, overweight or bad riders and incorrect collection can be contributing factors.*



Photo by Liz Tollerzo

manifold: sore feet, sore backs, sore mouths, bad riders, fear and anxiety, incorrect collection (very common), overweight riders, poor horse back strength and fitness(very common), or just overwork for a horse’s stage of fitness, poor saddle fit, and others. Inadequate correction of any such contributing factors will affect the outcome of any treatment.

“That said, horses are remarkably tolerant, so even reducing the effect of half of these troubles will give many horses a good chance of a 95% recovery.”

Dr Bidstrup maintains that one of the most common causes of back pain, anxiety and poor posture is that of the residual neurological effects of birth canal trauma.

Back pain in horses not only takes the pleasure out of riding for both horse and rider, it contributes to loss of performance, wasted time and talent, expense, and the early retirement of otherwise healthy horses and ponies. The signs are often easy to detect, and the treatment is not necessarily prohibitively expensive, invasive, or leading to endless time out of work. To prevent pain and suffering, and the loss of investment in a horse’s training, it is well worthwhile for horse owners to educate themselves about the symptoms of back pain. The solution may ultimately be in the owner’s hands, through prevention. If the problem is more severe or established, modern and less invasive treatments such as veterinary chiropractic and prolotherapy may offer an ongoing solution – providing the aforementioned causes are also rectified.

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**Equitana Presenter**  
Ian will be presenting 'Kissing Spines' and  
'Birth Trauma' at Equitana Melbourne.  
15-18th Nov 2012 [www.equitana.com.au](http://www.equitana.com.au)



## CLINICAL DIAGNOSES: Nuclear scintigraphy ('bone scans')

Though a useful diagnostic procedure for diagnosing bony causes of back pain, nuclear scintigraphy is expensive, as the equipment used is very high tech and expensive. The horse is admitted the day before treatment, having been exercised to ensure good blood flow throughout the body. The following morning under sedation a radioactive isotope is injected into the bloodstream. When spread throughout the body via the blood the radioactive isotope will selectively attach to 'hot spots' where active remodeling of bone is occurring due to fractures, ligament attachment strain or irritation of the bone surface. These hot spots with a concentration of the isotope act as focal radiation emitters which are detected by a large radiation camera. The examination lasts one to three hours. Due to radiation the horse is isolated for 36 hours, after which further investigation may take place. This is also the earliest time the horse may leave the hospital. At times very useful for veterinarians, Scintigraphy is not a general screening procedure due to the expense and because it has limited application, mainly being useful where there is disturbance of the bone. A good portion of the bone of the spine is not accessible by this method, being too deep for the radiation from the troubled bone to be detected clearly by the time it reaches the surface of the horse. Mostly used in lameness investigations and serious cases, such as suspected bone fracture, it may be resorted to when other diagnostics fail to explain symptoms affecting a horse’s performance and wellbeing.