



Equine Reproduction Embryo Recovery Embryo Transfer

*ERS is the longest, continually in
existence*

*Equine Embryo Transfer Company
in the United States*

*** CLICK HERE ***

Current Articles &
Research

Reproduction
Foal Disorders
Lameness

Check back often for
new additions

When it comes to catastrophic injuries in racehorses, most people immediately think of severe limb fractures. But these athletes sometimes suffer life-threatening fractures beyond the limbs. Lumbar vertebral fractures, for instance, can occur in the loin area near where the rear of the saddle sits.

In a recent study by University of California, Davis, researchers funded by the California Horse Racing Board's Racing Safety Program, scientists took a retrospective look at catastrophic lumbar vertebral fractures that occurred on California racetracks from 1990 to 2012.

"Our hope is that by bringing light to the factors that occur prior to these often fatal fractures, veterinarians can begin to recognize the warning signs before the injury occurs, potentially preventing a breakdown on the track," said lead researcher Elizabeth M. Collar, DVM, now a resident in large animal surgery at Oregon State University.

Lumbar vertebral fractures are dangerous for both horse and rider when they occur. Study horses that sustained this type of fracture typically fell or somersaulted at the time of injury, putting the jockey and the rest of the field in significant danger.

Throughout the 22-year study period, 38 Quarter Horses and 29 Thoroughbred racehorses suffered these fractures. In Quarter Horses in particular, lumbar vertebral fractures were the third most common musculoskeletal cause of death. The researchers conducted 10 post-mortem examinations (six on horses with lumbar vertebral fractures and four controls) to see if they could determine any trends.

"In the six necropsy exams involving lumbar fractures, all cases showed signs of previous lesions or abnormalities of the lumbar spine, indicating stress and/or low-grade injury of this area prior to fracture," Collar said.

Clinical signs often observed in horses with back pain that Collar said might be seen prior to fatal fracture include:

- Hind end lameness that can't be localized;
- Back soreness;
- Stiffness and decreased range of motion;
- Lack of forward impulsion; and
- Poor performance.

Collar said lumbar fractures aren't common, but when they do occur they often affect racehorses (particularly Quarter Horses) and jumpers. She recommended that veterinarians, owners, and trainers take heed if an equine athlete begins showing any signs of back pain—prompt veterinary attention could end up saving horses' and humans' lives.

The study "[Caudal lumbar vertebral fractures in California Quarter Horse and Thoroughbred racehorses](#)," will be published in an upcoming issue of the *Equine Veterinary Journal*.