



Splint bone problems: Splints, pops and fractures

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The splint bones are small bones located on either side of the larger cannon bone of the horse's lower limb, just below the knees and hocks. Each splint bone is attached firmly to the cannon bone by a ligament which spans the length of the splint bone called the interosseous ligament. A "splint" or "popped splint" occurs in the forelimb when the interosseous ligament is torn or bruised.

Popping a splint is usually an exercise-related event, especially where there is lots of turning and concussion. External trauma from the opposite foot or a kick can also result in a splint formation. Conformation, such as bench knees or offset knees, makes a horse more prone to splints; but exercise stresses alone can pop a splint even in perfectly conformed horses. Popping a splint is generally a minor event associated with mild to moderate lameness and swelling. Most lameness from splints will resolve in 2-3 weeks with proper treatment and rest, although full healing and readiness to resume work may take a little longer. Severely injured splints may take longer to heal, especially if the interosseous ligament sustained excessive damage or swelling impinges on the suspensory ligament.

An active or hot splint in the acute phase of injury often has heat and sensitivity to thumb pressure associated with a focal swelling over the point of injury. The initial injury causes inflammation of the torn ligament and nearby bone. The healing splint produces new bone to reaffirm the attachment to the cannon bone, stabilizing the splint bone and the source of irritation. The resulting blemish will gradually smooth out over a period of weeks to years and become less noticeable. Wrapping and anti-inflammatory treatment may decrease the overall size of the blemish if treatment is initiated early. Sometimes counter-irritant treatment may hasten the remodeling of an old, cold splint to help it smooth out more quickly. A small percentage of splints will cause chronic lameness due to impingement on the suspensory ligament and may need to be corrected surgically. Physical examination is often augmented with radiography to evaluate hot splints as to not be confused with a splint bone fracture.



Splint bone fractures can appear very similar to splints on physical examination although lameness is often more severe. Similar to popping a splint, a fractured splint bone may have focal swelling and pain on palpation. Splint fractures may also have a draining tract in the region of the fracture, from the initial wound. Splint bone fractures occur from similar causes as splints such as external trauma from kicks or direct blows from hitting other objects. Splint fractures can also be caused by internal forces.

As a horse matures, the interosseous ligament loses pliability; thus splint bone fractures occur more often in older horses (greater than 4-5 years). As is the case with any fracture, splint bone fractures require radiographs to obtain a proper diagnosis and treatment plan. Many uncomplicated splint bone fractures can heal with conservative care but special considerations may require surgical repair or removal of bone fragments.