Splints: cosmetic blemishes are not always a source of lameness

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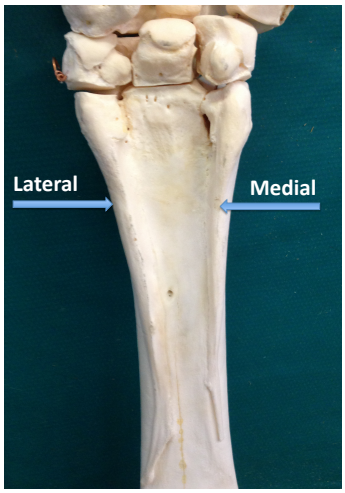
Horses that have "splints" are usually sound, even though they have firm lumps on medial or lateral legs. Young horses are ones who will acutely develop the condition, and as they age, the inflammation remains as a permanent bump, usually on the inside of the cannon bone.

The term "splints" refers to inflammation around or involving the splint bones. The cannon bone has two smaller bones on either side of it that run from the carpus (or the knee) down the length. These bones are connected to the cannon bone by a ligament. Young horses can often injure the ligament that connects the splint bones to the cannon bone, and it will become inflamed.



The reason for the injury to the ligament is that the splint bones sit in an area where the carpus (knee) and tarsus (hock) have a greater amount of load. When younger horses start work they can place even greater strain on their joints, and some of that force can be transferred to the splint bones. When the splint bones are put under greater force, they can be pressed to move independently of the cannon bone, and the ligament connecting them will fray or tear. The local inflammation will lead to an increase in fibrous tissue, and occasionally, ossification. This process is called ossification, and will result in a more lasting bump, or "splint", that is the most noticeable a couple inches below the carpus. There are four different types or reasons for a splint to occur.

True Splint: A tear or strain of the ligament connecting the splint bone to the cannon bone, resulting in a bump that is usually present on the inside of the leg (or the medial side).

Blind Splint: Swelling that occurs on the inner part of the splint, that is often difficult to see or detect on physical exam. This swelling results in a space between the splint and the suspensory ligament, and is often hard to identify.

Periostitis: Where the periosteum (outer layer of the bone itself) is damaged, causing inflammation that spreads. A blemish can remain but is usually not associated with lameness.

Knee Splint: Where the top (or most proximal part) of the splint bone becomes inflamed and can cause osteoarthritis within the carpus.

Splints are usually seen in younger horses in training, or who have just started work. The inside splint is the most common to observe because of its relationship to the knee and how the bones of the knee move. The mechanical load of the inside of the knee actually push the small splint bones down, creating the instability that leads to ligamentous tearing. Conformation abnormalities, imbalanced nutrition or overnutrition have also been associated with splint development.

Treatment of splints typically is limited to the acute phase, or early in the inflammatory process. Anti-inflammatory medications (such as bute), icing, pressure wraps are recommended. Other treatments include shock wave therapy, Surpass, acupuncture and massage. Steroid injection into the splint lesion can reduce inflammation and may help prevent excessive bony formation. Occasionally splints may require surgery if the bone formation is excessive. Splint bones can also be fractured which is also associated with swelling and inflammation. Fractured splint bones are associated with multiple other complications such as sequestrum and osteomyelitis. The lateral (or outside) splint bone is most typically involved in fractures. It is always advised to contact your veterinarian for diagnostics and diagnosis.

Horses with splints have a good to excellent prognosis for soundness. The cosmetic blemish rarely affects performance. Horses with excessive bony proliferation can have lameness associated with the splint encroaching on the suspensory ligament. There are instances where the carpal joint can be involved, increasing the risk of osteoarthritis. Horses treated appropriately and monitored by your veterinarian rarely have lameness, although when not treated appropriately, splints can cause recurring lameness.