

Dawson Creek Veterinary Clinic



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Navicular Syndrome/Caudal Heel Pain

What is Navicular Syndrome?

A degenerative condition involving the navicular bone and the soft tissue surrounding it including the deep digital flexor tendon. The navicular bone is a small bone in the back of the hoof. There are tendons, ligaments and other soft tissues surrounding this small bone which all act to help absorb shock when the horse moves. Because this condition affects more than the navicular bone, this condition may also be referred to as caudal heel pain. Concussion causes inflammation and abnormalities within these soft tissues and the navicular bone.

This condition generally affects both front feet although one may be worse.

What kinds of horses are affected by this disease?

Generally certain conformation features such as upright pasterns and small foot size relative to body mass predispose a horse to navicular syndrome. Also high impact sports such as cutting, reining, roping and jumping may increase the risk of this disease forming. Horses that are incorrectly or irregularly trimmed or shod may be more at risk due to having a long toe and a low heel which increases the stresses on the structures in the foot.

Navicular syndrome is typically first seen in horses 7-14 years of age but can be seen at other ages as well.

What diagnostic tests can be done to determine if my horse has this syndrome?

- 1) History: Intermittent lameness in one or both front feet
 - Reluctance to go down steep hills
 - Reluctance to walk or trot on hard or uneven ground
 - Lameness often worse when horse trotting in tight circles
 - Tripping or stumbling
 - Owners often think that their horse has problems with their shoulder because of the way they move.
- 2) General Lameness exam: Generally a horse with navicular syndrome will take shortened strides with both front legs. When a horse trots it may place the foot toe first to try to relieve the pain on the heels. Sometimes people don't actually realize their horse is lame because both front legs are affected. Hoof testing:

- ~50% of horses with navicular syndrome will be sensitive to pressure over the frog or heel region.
- 3) **Nerve blocks:** If a horse is lame enough a short acting local anaesthetic can be applied to the nerves leading to the foot. Once these nerves are desensitized, the horse will go sound on that foot. Often the lameness on the other front foot may become more obvious once one foot has been frozen.
 - 4) **Radiographs:** X-rays may show some changes to the navicular bone but these changes may not correspond to the degree of lameness or the long term prognosis. Also some horses may have navicular disease but no changes will be evident on radiographs.

What can be done to treat this disease?

- 1) **Corrective trimming and shoeing:** This is the most important aspect in managing a horse with navicular syndrome. If this is done correctly, it can relieve many of the stresses in the foot. Balancing the hoof side to side, keeping the toes short, building up the heels and possibly egg bar shoes can help relieve these stresses. Aluminum egg bar shoes are the best because they will still allow the heels to expand and contract, decreasing the risk of contracted heels. We carry special navicular shoes at the clinic and work closely with many farriers when treating this disease.
- 2) **Bute:** Phenylbutazone is an anti-inflammatory similar to aspirin that can help with some of the pain and inflammation in the foot. It will not slow down the progression of disease or cure the disease but it may help to keep a horse more comfortable.
- 3) **Navicon:** This is a drug that can be added to the feed that helps to increase circulation within the foot. In some cases this will help relieve some of the pain associated with navicular syndrome. A trial period of six weeks will determine if this will help in each particular horse. The American Horse Show Association requires that treatment should be discontinued 96 hours prior to a show.
- 4) **Injection of Coffin Joint:** Injecting a corticosteroid and hyaluronic acid (a component of joint fluid) into the coffin joint has been beneficial in some horses. The amount a horse will benefit from this and the length of time it will last will vary from horse to horse. Often once or twice a year injections are all that are necessary.
- 5) **Neurectomy:** The nerves leading to the foot can be surgically cut to desensitize the foot. This should only be considered as a last resort when all of the above therapies have failed. This may benefit a horse for many years following the surgery. Occasionally a neuroma (a benign tumor on the cut end of the nerve) may form following the surgery or the nerves may regenerate and sensation may return to the foot.

If you have any further questions or concerns regarding this disease please contact your veterinarian at the Dawson Creek Veterinary Clinic.