

Navicular Disease

Navicular disease is lameness of the front feet caused by injury to the navicular bone. It is a very common lameness, particularly in breeds which have genetic defects in conformation. Defects in conformation, such as upright pasterns and straight shoulders and/or small feet, impair the shock absorbing mechanisms of the front legs and predispose the pony to navicular disease. Similarly, heavy use on hard ground will increase the probability of navicular disease. Affected ponies are usually lame in both front feet. Because of the pain, they will alternately "point" or advance one front foot at a time to remove the weight from it, and thus reduce the pain.

In the early stages of the disease, resting the pony can make the symptoms disappear; but when returned to work, the pony will soon become lame. Eventually, the affected foot or feet will become smaller than normal, the walls steeper, the heels contracted and the frog shrunken because the pony will attempt to reduce the pain by landing toe first rather than heel first as it moves. Corrective shoeing, pain killers and neurectomy (cutting the nerves to the back surface of the foot) can prolong the useful lifespan of the pony. Accurate diagnosis and treatment of navicular disease requires radiographic examination of the navicular bone in the pony's hoof; but at present, there is no known cure for the condition.

More Information

This is the fourth in a series of pamphlets on hoof care for the Newfoundland Pony. Further information can be found in the other pamphlets (Structure of the Hoof; Routine Hoof Care; Hoof Trimming; and Shoeing Your Pony), through the many magazines and books available on ponies, and through your Regional Veterinarian.

Newfoundland Pony Society:

www.newfoundlandpony.com

For more information, please contact the Newfoundland Pony Society, your Regional Veterinarian or the Animal Health Division.

Other information pamphlets are available online from the Department of Natural Resources at:

www.nr.gov.nl.ca/agric/

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Hoof Care of the Newfoundland Pony: Common Causes of Lameness



Introduction

The Newfoundland Pony is well known for its hardiness and flint-hard hooves. While these characteristics are desirable, they do not suggest that its health needs are any less than those of other horses and ponies. For this reason, a series of pamphlets have been written on the care of the Newfoundland Pony's hooves. This is the fourth in that series.

Common Causes of Foot Lameness

This section gives the reader a background in the recognition, cause, treatment and outcome of the common conditions which produce lameness in the pony. The information is intended to be practical and in language the layman will understand. However, it is necessary to refer to anatomical, conformational and physiological aspects in order to give accurate information.

Many and varied treatments are available for lameness, once an accurate diagnosis is made. Diagnosis may be as simple as a physical examination done by your practicing veterinarian, or as complicated as special radiographic tests at a veterinary teaching hospital. Treatments vary from simple rest to complicated surgery, with corrective trimming and shoeing, anti-inflammatory drugs, acupuncture, bandaging, cold-water hosing, electrical stimulation and many others coming in between. It must be realized that an accurate diagnosis is the first step in any case, and veterinary services should be used.

Stone in the Foot

This occurs suddenly, usually while at work, particularly on a gravel road. Stones often lodge between the shoe and frog, causing considerable discomfort. Stones should be removed immediately to avoid further damage.

Bruised Sole

This is a direct injury of the flat of the hoof or sole by stones, irregular ground, injury

or bad shoeing. Rest and corrective shoeing are usually all that is needed. If unresponsive, veterinary assistance should be sought.

Corns

Corns are the result of bruising of the sole between the bar and the hoof wall. This is most often the result of poorly fitting shoes or neglecting to have the pony re-shod at reasonable intervals. Corns can be simple and classified as dry, or they can become infected. Dry corns are treated by relieving the pressure. Remove the shoe, clean the foot thoroughly, and reapply a 3/4 length shoe, or rest without shoes if possible. If the corn is infected, it will appear moist and be draining serum or pus. In these cases, veterinary assistance should be obtained.

Pricked Foot or Puncture Wounds of the Foot

Puncture wounds of the foot are common and can cause severe lameness that may lead to permanent disability or death if not properly treated. As with any wound that allows bacteria to enter the body, there is a serious threat of infection occurring, necessitating veterinary care to prevent serious consequences (e.g. tetanus). Abscesses can develop in as little as two days following the initial injury. Often, the site of puncture is very difficult to find by visual examination. A hoof knife, hoof testers and/or radiographs can be used to locate and evaluate the injury. The outcome of foot punctures depends on the area of the foot affected, the type of puncturing object and whether secondary infection occurs. In all cases, early veterinary care is essential to evaluate the damage done and prevent further damage from occurring.

Hoof Cracks

Hoof cracks, extending from the ground surface upward, are common problems in ponies' hooves which are not trimmed or are excessively dry. Injury to the hoof forming tissue at the coronary band can also result in cracks. These extend from the coronary band downwards. Severe lameness can be produced if bacteria enter the cracks and gain access to the sensitive structures of the foot causing infection. Cleaning and treating of the crack, followed by proper trimming and shoeing, can be used to alleviate the condition until the hoof wall grows out (about 1 cm per month). The application of fibreglass or plastics to the hoof wall can also produce excellent results when applied by a competent farrier or veterinarian. Hoof cracks can usually be prevented by periodic hoof trimming and preventing the hooves from becoming excessively dry and hard. Standing a pony in water or mud periodically will help to keep its feet soft. The application of hoof dressing is helpful to prevent moisture escaping from the hoof; however, these should be applied to hooves already dry. Neat's foot oil is an excellent agent for moisturizing dry hooves.

Thrush

Thrush is a bacterial infection of the frog and sole of ponies kept in unclean conditions. Affected feet will have a very offensive odour and will show a black discharge around the frog. Lameness will result if the condition is allowed to progress far enough to affect the sensitive structure of the foot. Proper cleaning and trimming of the foot along with proper stable sanitation will remove the cause of the infection. Affected ponies can be treated by cleaning and trimming the foot and disinfecting it with a phenol or iodine solution. The foot can also be packed with cotton soaked with 15 percent sodium sulfapyridine solution.

Laminitis or Founder

Laminitis is an inflammation of the laminae that bind the hoof wall to the coffin bone. The causes of laminitis are varied and, in many cases, obscure. The commonly recognized causes are 1) overeating of grain, 2) ingestion of cold water by a hot pony, 3) retained afterbirth, 4) over-fat ponies, and 5) idle ponies pastured on lush green pasture (especially if clover or alfalfa are present).

Regardless of the cause, the signs of laminitis will be similar. In the early or acute stages, the hoof and coronet will be hot, the pony will often sweat and will be reluctant to move. Because the front feet are usually the most severely affected, the pony will be camped out in front (front feet out in front of the body) and camped under behind (hind feet well under the body) in an attempt to remove weight from its front feet. In cases where all four feet are affected, the pony will stand under himself both in front and behind as though it were attempting to balance on a barrel. The pony may spend a lot of time lying down and be reluctant to get up.

In advanced or chronic cases of founder, there is usually an exaggeration of the ring formation on the hoof wall; and there will be decreased arch to the sole (dropped sole). In severe cases, the coffin bone will protrude through the sole. The afflicted pony may spend most of its time lying down. A chronically foundered pony will exaggerate its attempts to land heel first while in motion.

Treatment of early laminitis varies with the cause. Whenever a pony is suspected of having laminitis, a veterinarian should be called immediately and the pony exercised (mild exercise) until the veterinarian arrives. If not severely affected, ponies with chronic laminitis can be useful for most types of work if proper foot care is instituted.