

Common causes of pain and lameness	Additional information
Laminitis	<p>Inflammation of the laminae. The laminae are tiny finger like structures that interlock and secure the coffin bone to the hoof wall and keep the bone in place. If blood flow to these laminae is disrupted, inflammation occurs that weakens the laminae structures and interferes with the hoof wall-bone bond making the laminae unable to hold the coffin bone in place.</p> <p>Diagnosed by feeling a supra-coronary depression above the dorsal coronary band. In some case the coffin bone will protrude through the sole of the hoof, which is called solar prolapse.</p> <p>Treatment: Diagnosing and treating the primary problem (laminitis is often due to a systemic or general problem elsewhere in the horse's body). Dietary restrictions: stop feeding all grain-based feeds and pasture. Feed only grass hay until advised by your veterinarian. Treatment with mineral oil via a nasogastric tube to purge the horse's digestive tract, especially if the horse has overeaten. Administering fluids if the horse is ill or dehydrated. Administering other drugs such as antibiotics to fight infection; anti-endotoxins to reduce bacterial toxicity; and anticoagulants and vasodilators to reduce blood pressure while improving blood flow to the feet. Stabling the horse on soft ground, such as in sand or shavings (not black walnut) and encouraging the horse to lie down to reduce pressure on the weakened laminae. Opening and draining any abscesses that may develop.</p> <p>Taken from https://www.hygain.com.au/laminitis-feeding-laminitic-horse/</p> <p>https://www.youtube.com/watch?v=mxv8nky5la0</p>
Tendon and ligament damage	<p>Injury to tendons commonly occurs during exercise. Strenuous exercise can result in tearing of fibers especially in unfit horses. Even fit horses which are over stretching tendons in fast work or on unlevel ground or during jumping at speed</p>

	<p>can damage these structures. The degree of damage can range from minor, with minimal fiber damage to severe with total tendon rupture.</p> <p>Most frequently, a proportion of fibers are damaged in a localised area within the tendon called a zone. This may form a discrete hole which extends for a variable length of the tendon.</p> <p>Diagnosis: An ultrasound scan approximately one week after injury will allow us to visualise the damaged structure(s) if they are above the hoof capsule.</p> <p>Taken from https://scott-dunns.co.uk/equine-advice/ailments-and-diseases/tendons-ligament-injuries/ https://www.youtube.com/watch?v=HX1Ai2rMKec</p> <p>When these injuries are detected, a rest period is always necessary. A vet would usually administer NSAID's. Icing, application of McTarnahan's ball solution or poultice can also be done to aid recovery.</p>
Bruises or abscess in the hoof	<p>The basic abscess treatment strategy is to open it and let it drain. Some will even pop on their own. The abscess is drained through the sole for two reasons:</p> <ol style="list-style-type: none"> 1. The crack or puncture that can lead to an abscess generally is in the sole, and it can be followed to the abscess. 2. This puts a hole beneath the abscess so gravity can help pull out the pus. <p>Abscesses that have gone undetected can undermine a large portion of the sole, which might need to be pared away. In such cases the foot might require longer-term protection such as a pad or a plate.</p> <p>Taken from https://thehorse.com/158746/hoof-abscesses-in-horses/</p>
Poor foot balance	<p>Hoof imbalance can be due to poor conformation, improper shoeing, or how regularly the horse is shod.</p> <p>Ideally, the horse's foot should strike the ground as a unit, with the entire weight-bearing surface hitting the ground together. In the case of side-to-side imbalance (lateral-medial imbalance) the outside toe strikes the ground before the heel, with the inside heel landing last. This leads to uneven forces across the hoof and uneven loading of the lower limb joints.</p> <p>Treatment:</p> <p>Dorsopalmar imbalance -</p>

	<p>Trimming the toe and/or elevating the heels will decrease the strain in the DDFT and ALDDFT and hence decrease strain on the navicular bone (although raising the heels can increase strain through the superficial digital flexor tendon and suspensory ligament). Additionally placing the shoe further caudally will provide support for the heels but also move the centre of rotation of the distal interphalangeal joint caudally, again reducing the moment force required for motion through this structure. Using wedges to raise the heels may have a negative effect as increased pressure will further slow hoof growth at the heel and these have to be placed with caution where collapsed heels are present. In such cases, wedges may not be appropriate and placement of a bar shoe may achieve some of the aims whilst protecting the heels to allow further growth.</p> <p>Mediolateral imbalance-</p> <p>Trimming to balance the foot is essential with mediolateral imbalance to try to re-establish the correct proportions of the foot. Trimming the longer wall (commonly lateral) is the first line of treatment or if there is insufficient wall, then lengthening the shorter wall (using a wedge) can be used. Additionally, thinning the shoe of the lateral wall and setting the shoe slightly out at the shorter wall can help redress the imbalance. In cases where shearing of the medial heel bulb has occurred, floating of the medial quarter may be required. This should be done gradually, as attempting to restore balance too rapidly can exacerbate the lameness.</p> <p>Taken from https://www.horseandhound.co.uk/horse-care/horse-care-tips/understanding-hoof-balance-47715 & https://pdfs.semanticscholar.org/efc4/dcd1932b93c9314a46ea8284d2b154c79c45.pdf</p> <p>https://www.youtube.com/watch?v=B5xPwnGahk8</p>
<p>Degenerative joint disease</p>	<p>Arthritis, often called degenerative joint disease (DJD), is a condition that afflicts many horses. Arthritis is not only painful, but makes it difficult for a horse to move about. The condition is normally characterized as a slowly developing chronic disease of the joint in which the joint surface (cartilage) wears down, resulting in pain and subsequent lameness</p> <p>Taken from https://www.petmd.com/horse/conditions/musculoskeletal/c_hr_arthritis</p> <p>Further reading & information: https://equimed.com/diseases-and-conditions/reference/degenerative-joint-disease https://www.youtube.com/watch?v=5uJmxf4Kui0</p>