Laminitis

TREATMENT

- **Primary Goals of Treatment are:**
  - ❑ Eliminate the initiating cause
  - ❑ Relieve the pain
    - ➢ Non-steroidal anti-inflammatory and anti-endotoxic drugs (i.e. phenylbutazone, flunixin, ketop rofen) provide humane relief and inhibit the inflammatory process
    - ➢ heart bar shoes can be fitted to remove pressure on the toes and hoof wall

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  - ❑ Relieve the pain
    - ➢ DMSO 20-100 mg/kg bw IV
    - ➢ Local anaesthetic blocks of the heel nerves will abolish the pain but will encourage rotation of the pedal bone as the horse takes more exercise, and are therefore best avoided

Laminitis

TREATMENT

- **Primary Goals of Treatment are:**
  - ❑ Eliminate the initiating cause
  - ❑ Relieve the pain
  - ❑ Improve the blood circulation in the foot
    - ➢ Vasodilators (i.e. acetylpromazine, isoxsuprine) may help by relieving the vasoconstriction which occurs in the arteries of the laminae of the hoof
    - ➢ Nitroglycerine ointment 10-15 mg per foot, applied locally, improves blood vessels repair through cutaneous absorption

Laminitis

TREATMENT

- **Primary Goals of Treatment are:**
  - ❑ Eliminate the initiating cause
  - ❑ Relieve the pain
  - ❑ Improve the blood circulation in the foot
    - ➢ Hot or cold hydrotherapy use is controversial
      - **Cold water** cools the feet and reduces the inflammation but increases vasoconstriction
      - **Hot water** warms the feet and amplifies the inflammation but decreases vasoconstriction
      - Both hot and cold hydrotherapy have beneficial and detrimental effects and must be used with caution (depends upon each individual case)

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TREATMENT

- **Primary Goals of Treatment are:**
  - ❑ Eliminate the initiating cause
  - ❑ Relieve the pain
  - ❑ Improve the blood circulation in the foot
  - ❑ Provide support for the foot through
    - ➢ Horse should be bedded on wet sand or wood shavings (these materials pack up into the foot supporting the sole)
    - ➢ Frog support pads, taped to the feet, will transfer weight bearing from the walls to the sole and frog, reducing the stress on the weakened laminae of the hoof wall
    - ➢ Feed intake should be reduced to lower body weight,
    - ➢ maintaining mineral, vitamin and trace element supplementation, especially biotin, methionine, and amino acids which help encourage the growth of good quality hoof.

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  - ❑ Provide support for the foot through
  - ❑ trimming and shoeing and corrective surgery
    - ➢ Expert trimming and shoeing should be performed
    - ➢ Corrective Surgery may be helpful in some cases (dorsal hoof wall resection DHR)

Laminitis

TRIMMING & SHOEING

- During the trimming and shoeing process the foot is gradually re-structured to accommodate the effects of the pedal bone rotation
- Expert trimming progressively reduces the length of the toes and lowers the heels to improve the angle between the pedal bone, hoof wall and sole and to allow new shoes to seat further back under the weight of the foot at a better angle to the pedal bone
- Heart bar shoes or other shoes designed to support the frog, transfer weight from the damaged hoof walls and encourage blood circulation in the foot


X-RAY SHOWING
ROTATION OF THE
PEDAL BONE.

Laminitis

TRIMMING & SHOEING

- Shoes which support the frog must be expertly and individually made and fitted or their use may be counter-productive (can act as a fulcrum over which the pedal bone will be encouraged to rotate further):
- Apex of the 'V' is positioned in front of the attachment of the deep digital flexor tendon to the pedal bone (by approximately 2 cm)
- Bar should not extend beyond the limits of the frog or damage to blood vessels may occur

Laminitis

CORRECTIVE SURGERY

- **Deep digital flexor tenotomy:**
  - ❑ The surgical section of the deep digital flexor tendon has been suggested as a therapeutic option, but results have been variable
- **Dorsal wall resection:**
  - ❑ In appropriate cases, a partial or complete surgical removal of the front hoof wall is performed under local anaesthesia
  - ❑ Requires expert farriery with veterinary help and supervision
  - ❑ May help by initially relieving pain and pressure and allowing treatment of infection
  - ❑ If successful, the hoof re-grows intimately with the pedal bone, creating a better angle between the pedal bone, hoof wall and sole

Laminitis

AFTER-CARE

- Varies in each case depending upon severity
- Clinical condition must be carefully monitored
- Analgesic and vasodilator medication is carefully reduced over a 2 to 4 week period
- Horse should have box rest until off all medication
- Heart bar shoeing and foot trimming should be continued as determined by the veterinarian and farrier
- Once off medication and clinical condition allows, there should be a gradual return to walking exercise

Laminitis

PREVENTION

- Keep horses (especially small ponies) in fit and healthy body condition, avoiding obesity and sudden access to lush grass or a high grain diet
- attention without delay for lameness, diarrhea, retained placenta and generalised illnesses
- Maintain correctly conformed and balanced feet by regular hoof trimming and shoeing (especially to prevent the development of long toe conformation)

Laminitis

CAUTION

- The symptoms associated with laminitis are sometimes misinterpreted as signs of colic, muscle pain or back pain
- Laminitis is a very painful, debilitating and potentially life-threatening disease, for which veterinary attention should be sought without delay