

White Line Disease

The white line is seen on the underside of the foot. It is where the unpigmented horn of the inner hoof wall joins the horn of the sole. Degeneration of the horn at the white line leads to separation of the hoof wall from the underlying structures and weakening of the hoof wall. A combination of infectious, mechanical, nutritional and environmental factors have been implicated in causing the problem.

Small or large areas of the white line can be involved.

Where the toe region only is involved the condition can be called 'seedy toe'.



POOR FOOT CONFORMATION PREDISPOSES TO WHITE LINE DISEASE



WHITE LINE DISEASE SHOWING SEPARATION OF THE HOOF WALL FROM THE SOLE

White Line Disease (WLD) occurs worldwide and can affect any age, breed and sex of horse. It may involve one or more feet.

No single factor has been proven to cause WLD but the following factors can all play a part:

- Infections – both fungal and bacterial organisms have been isolated from affected feet. They are more likely to be secondary invaders than the primary cause.
- Mechanical – increased separating forces can be caused by long toes, poor conformation and hoof imbalances. Pre-existing damage will increase susceptibility e.g. from chronic laminitis.
- Nutritional – poor quality horn due to deficiencies or imbalances in diet.
- Environmental – wet, unhygienic conditions soften the horn, allowing penetration of bacteria. Conversely, excessively dry hooves are prone to cracks and fissures allowing bacteria to enter.

WHITE LINE DISEASE:

- causes progressive separation of the hoof wall at the white line;
- has multiple causes;
- may or may not cause lameness, but at its worst can lead to pedal bone rotation;
- treatment is aimed at removing abnormal detached horn and implementing good hoof care and conditions;
- is prone to recur.

Clinical Signs:

- Dry crumbling horn at the white line and blackened areas, depending on the type of infection involved.
- The ground surface of the hoof wall will become undermined and ragged and prone to splitting off.
- Nailing on shoes will become a problem.
- As the separation progresses up the hoof wall it may sound hollow when tapped.
- Lameness will become apparent when the separation becomes more extensive and there is a strain put on the remaining attachments between the hoof wall and the sensitive laminae.

Treatment and Control:

- removal of abnormal horn;
- specialist shoeing to stabilise the hoof;
- topical medical treatments e.g. 2% iodine to disinfect affected horn;
- nutritional supplementation with biotin, lysine, calcium and trace elements to help improve the quality of new horn growth;
- keeping the feet clean and dry.

The treatments required and duration of the recovery will depend on the severity of the case. Successful treatment can depend on sometimes radical and extensive removal of the hoof wall. This will take time to regrow. Acrylic hoof repair products may be used once all infection is gone.

From an insidious start, WLD can progress to your horse needing extensive treatment with the associated veterinary and farrier costs, not to mention the time required off exercise and effect on your horse's welfare.



TREATMENT INVOLVES REMOVAL OF THE AFFECTED HOOF WALL

PREVENTION AND CONTROL

- regular hoof care and trimming;
- good stable environment;
- dry environment.



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