

White Line Disease (WLD) in Horses:

What is White Line Disease?

White Line Disease (WLD), also known as **seedy toe** or **hoof wall separation**, is a common condition that affects the horse's hoof wall. Despite the name, WLD does **not** actually involve the true "white line" (the boundary between the sole and the inner hoof wall). Instead, it's an infection and deterioration of the **stratum medium**—the tough, non-pigmented layer that makes up the bulk of the hoof wall.

This deterioration starts at the bottom of the hoof, typically near the toe or quarters, and progresses upwards, causing a separation within the hoof wall itself.

Key Characteristics:

- **Non-Laminar:** It is *not* the same as laminitis. WLD affects the non-sensitive, deep layers of the hoof wall.
- **Opportunistic:** It's usually caused by a mix of **fungi** and/or **bacteria** that invade the hoof wall through pre-existing defects, cracks, or loose shoes.



Causes and Risk Factors

The microorganisms that cause WLD thrive in environments with low oxygen and high moisture.

Category	Description
Environmental	Wet, humid conditions and standing in mud or deep bedding for long periods.
Mechanical Stress	Poor hoof balance, long toes, or flared walls can create excess leverage, which leads to micro-separations in the hoof wall, allowing organisms to enter.
Poor Hoof Care	Infrequent or inadequate trimming/shoeing that allows cracks or old nail holes to persist.
Underlying Issues	A history of chronic laminitis or a poor-quality hoof wall may make a horse more susceptible.

Signs and Symptoms

WLD can be insidious (slowly progressing) and may go unnoticed until it is advanced.

Early Signs (Often Subtle):

- **Discoloration:** A chalky, crumbling, or powdery material seen in the area between the sole and the hoof wall.
- **Hollow Sound:** Tapping on the hoof wall over the affected area may produce a hollow or drumming sound.
- **Loose Shoe:** Shoes may become loose or easily thrown because the underlying structure is compromised.

Advanced Signs:

- **Lameness:** Lameness only occurs if the separation is deep enough to reach the sensitive laminae or if an abscess forms.
 - **Bulging Sole/Separation:** A visibly soft, deep separation or cavity in the hoof wall, often at the toe.
 - **Hoof Wall Distortion:** The hoof wall may flare or bulge as it loses its internal support.
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Diagnosis and Treatment

Treatment requires a two-pronged approach: removing the infection and correcting the mechanical issues.

1. Diagnosis

Your veterinarian and farrier will work together. They will:

- **Probe:** Carefully probe the area to determine the depth and extent of the separation.
- **Radiographs (X-rays):** X-rays are crucial to determine the exact extent of the wall separation and ensure the coffin bone (P3) is not compromised.

2. Treatment: Resection

The primary treatment is **surgical debridement (resection)** by your veterinarian and/or farrier.

- **Removing the Affected Tissue:** All dead, infected, and separated hoof wall tissue must be removed until only healthy, solid wall is exposed. This process exposes the infection to air, which is hostile to the anaerobic organisms causing the disease.
- **Extent:** Resection may range from a small, local "groove" to a significant portion of the hoof wall, sometimes reaching the coronary band.

3. Aftercare

- **Topical Treatment:** The exposed area must be kept clean and dry, often treated with topical antiseptics or antifungals (e.g., iodine-based solutions, copper sulfate, or specific veterinary-recommended products).
- **Shoeing/Support:** Therapeutic shoes (such as a full bar shoe, heart bar shoe, or a shoe with clips) are often necessary to provide support to the sole and prevent movement of the hoof wall until the defect grows out.
- **Environment:** Strict management is required. The horse must be kept in a **clean, dry environment** (stall rest on clean bedding) until the treated area is fully hardened.



Prognosis and Prevention

Prognosis

- The prognosis is generally **good** if the entire infected area can be successfully removed and the horse remains sound (or soundly managed) during the re-growth phase.
- Recovery is a matter of time. The hoof wall grows from the coronary band down, meaning it can take **6 to 12 months** for the defect to completely grow out, depending on its severity.

Prevention is Key!

1. **Maintain Hoof Balance:** Stick to a regular trimming and shoeing schedule (typically every 4-8 weeks) to prevent flares and leverage-induced separations.
2. **Keep Hooves Dry:** Limit your horse's time standing in deep mud, manure, or wet stalls.
3. **Inspect Regularly:** Pick out your horse's hooves daily and look for any unusual discoloration, softening, or cracks.
4. **Treat Cracks Promptly:** Address any hoof wall cracks, chips, or loose shoes immediately to prevent WLD organisms from gaining entry.

If you suspect your horse has White Line Disease, please call us to schedule an exam immediately. Early intervention is vital for a faster recovery!

