What is Equine Pastern Dermatitis (EPD)?

- This is a non-specific term which indicates inflammation of the pastern.
- Colloquial names include: Scratches, Mud Fever, Mud Rash, Grease Heel, Dew Poisoning, Grapes, etc.
- Pastern dermatitis is not a specific disease but rather a “cutaneous reaction pattern” in the horse. This means that there can be a number of different causes with a similar appearance! You must identify the actual underlying etiology (cause) in order to accurately treat the problem.
- That’s why many treatments may be ineffective because the correct specific cause has not been identified and/or the secondary bacterial infection was not treated.

EPD can vary in appearance... what are the common forms?

Mild Form: (Scratches, Mud Fever, Mud Rash)
- The mild form is the most common form.
- The skin is thickened, loss of hair along with scale & crusting.
- Lesions may be itchy and/or painful.

Exudative Form (Grease Heel, Dew Poisoning)
- Skin is red & inflamed skin
- The presence of serous (clear) or purulent exudate (pus)
- The skin may be eroded, ulcerated and raw.

Chronic Proliferative Form (Grapes, Verrucous pododermatitis)
- Excessive granulation tissue that becomes massively thickened (lichenified) and nodular.
- This tissue can become cracked and may bleed with normal movement.

What causes EPD (all forms)?
Your veterinarian can be instrumental in helping to figure out the underlying causes!
- Exposure of the pastern to a constant wet environment, this macerates the skin and which leads to secondary bacterial infection.
- Staphylococcal bacteria are the most common cause of infection.
- Other infections which can occur due to constant environmental moisture include: Dermatophilosis (rain rot), Ringworm (fungus) & Malassezia (yeast).
EPD is not one specific disease.

Common causes include bacterial, fungal or parasitic infections.

ESS™ Recovery Shampoo & Spray is an effective treatment and preventative therapy.

- Parasitic infections with mites. Chorioptes mites are most common in draft horses with heavy feathers.
- Contact irritants & allergy: this typically includes plants, chemicals and muddy/wet pastures as examples.

**Beware... Immune-mediated disease can mimic EPD!**

**Photoactivated vasculitis (Pastern Leukocytoclastic Vasculitis)**

Photoactivated vasculitis (Pastern Leukocytoclastic Vasculitis) is an immune disease that primarily affects white leg. The symptoms are induced by sun exposure (“photo-aggravated) so the disease is seen primarily in the summer months.

This disease typically causes well-demarcated, painful lesions on the pasterns and leg edema (swelling).

**Pemphigus foliaceus (immune mediated disease)**

Pemphigus foliaceus is an immune mediated blistering disease that can cause crusting of the pasterns or may become generalized and cover the entire body.

**How does my veterinarian determine the most likely cause of EPD in my horse? The medical history of your horse is most important!**

**Typical questions may include:**
- Are the symptoms seasonal or non-seasonal?
- Are the lesions itchy or painful?
- What topical medications or home remedies have been applied?
- What are the bedding conditions?
- Is there excess moisture in the horse’s environment such as wet or muddy pastures?
- Is there exposure to sand pastures?
- What is the insect burden like in your area?
- Are any other horses in the stable affected? Looking for potential contagion.
- Are any people in the stable affected? Looking for potential zoonosis (ringworm, MRSA...).
- Has there been any exposure to clover pastures, St. John’s Wort, Buck wheat, or perennial rye grass? All can cause contact photosensitization.

**Diagnostics used to identify specific cause of EPD**

- Cytology by impression smear or acetate tape prep stained & examined microscopically.

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- Bacterial culture & sensitivity to identify the bacteria & the correct antibiotic therapy.
- Skin biopsy involving a removal of a small piece of tissue and examined microscopically by a pathologist.
- Fungal culture (DTM) for to identify a strain of ringworm such as *Trichophyton equinum*
- Skin scrapings to rule out mites (*Chorioptes* most common in draft horses).
- Trichogram which involves hair “plucking” & microscopic examination of hair.
- Blood tests such as complete blood count (CBC) and serum chemistry (liver, kidney, etc. evaluation) to assess for underlying illness and possible liver-associated photosensitization.

**What therapies are recommended for EPD?**

- MOST IMPORTANT: the best recommendations occur AFTER the determination of the actual cause!!
- Keep horses in clean dry stalls during wet weather.
- House horses in paddocks until after the morning dew has dried.
- Consider alternate source of bedding; treated wood shavings contain chemicals that may cause contact hypersensitivity in some horses.
- Keep hair in the pastern and fetlock areas clipped.
- Consider daily cleansing of the area with an antibacterial shampoo and dry the area thoroughly.
  
  **ESS Recovery Shampoo & Spray is an excellent option for your horse!**

- Do not cover or bandage an area that is infected- it can get worse…keep dry and open.
- Astringent sprays are good to use after the area has been cleaned.
- Antibacterial sprays (like ESS products) or ointments (mupirocin ointment, silvadene cream, etc.) are best.
- Topical steroids should be reserved for cases of hypersensitivity or vasculitis.

**Chronic Proliferative form of EPD**

Topical therapy is important in preventing/controlling chronic EPD.
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