



Horse Health:

Solar Abscesses

(Pus in the Foot or Gravel)

What is it?

A **(sub)solar abscess**, often referred to as “**pus in the foot**” or “**gravel**” is one of the most common causes of sudden, severe lameness in horses and ponies.

It occurs when a painful pocket of pus forms between the layers of the hoof, usually beneath the sole. This build-up of inflammatory material creates pressure inside the hoof capsule, making it extremely painful for the horse to bear weight on the affected foot.

Although alarming to witness, most subsolar abscesses are treatable and resolve quickly with appropriate care.

What causes it?

Subsolar abscesses are caused by **bacteria entering the hoof** through a breach in its protective barrier.

Common entry points include:

- **Cracks or separations** in the white line (the junction between the sole and hoof wall)
- **Penetrating injuries**, such as stepping on a nail or sharp stone
- **Bruising** from hard or uneven surfaces
- **Laminitis**, which can weaken hoof structures and allow bacteria to

invade

Once inside, bacteria multiply and the body responds by sending white blood cells to the area, resulting in pus formation. The pressure builds up, causing pain and lameness.

What horses are at risk?

Any horse can develop a subsolar abscess, but certain factors increase the risk:

- Poor hoof care or irregular farriery
- Wet, muddy conditions that soften the hoof and allow bacteria to enter
- Dry weather following wet spells, which can cause hoof cracks
- Horses with laminitis or metabolic conditions like Cushing's disease (PPID)
- Horses turned out on stony or uneven ground

Regular hoof care and environmental management play a key role in reducing risk.

What are the symptoms?

The hallmark symptom of a subsolar abscess is **sudden, severe lameness**, often so dramatic that it may look like the horse has broken a leg.

Other signs include:

- Heat in the hoof
- Strong digital pulses in the affected limb
- Reluctance to bear weight on the affected foot
- Pain when pressure is applied with hoof testers

- Swelling in the lower limb in more severe cases

In some cases, the abscess may rupture and drain through the sole, heel bulbs, or coronary band, providing relief.

How is it diagnosed?

Diagnosis is usually based on clinical signs and a physical examination by a vet or farrier.

Key steps include:

- Hoof testing to identify sensitive areas
- Paring the sole to locate and release the pus
- Nerve blocks, if the source of pain isn't immediately clear
- Radiographs (X-rays) in complicated or recurrent cases to check for deeper infections or pedal bone involvement

Finding and draining the abscess is the definitive way to confirm the diagnosis.

How can it be treated or managed?

Treatment focuses on **relieving pressure and encouraging drainage**.

Here's what to expect:

DO:

- Call your vet or farrier as soon as you notice lameness
- Keep the horse in a clean, dry, confined area
- Apply a **poultice** to soften the sole and draw out infection
- Use duct tape or a hoof boot to secure the poultice
- Give painkillers if prescribed by your vet
- Monitor for signs of colic if turnout is restricted

- Watch for swelling or signs of laminitis in the opposite limb

Most abscesses resolve within 2–5 days, but some may take longer or require follow-up care. Your vet or farrier can dramatically accelerate the healing process by paring down to relieve the pressure, but this requires knowledge and skill and should not be attempted on your own.

DON'T:

- Give antibiotics unless prescribed - most cases don't need them
- Administer extra painkillers without veterinary advice
- Try to open the abscess yourself - this can cause more harm
- Continue poulticing if the frog or skin becomes damaged
- Let the foot get wet once drainage has stopped
- Ignore signs of worsening lameness or swelling

Proper care and patience are key. If the horse doesn't improve, further investigation may be needed.

Can it be prevented?

While not all abscesses can be prevented, you can reduce the risk with good management, especially:

- Regular hoof trimming by a qualified farrier
- Maintaining clean, dry bedding
- Checking hooves daily for cracks, bruises, or foreign objects

If your horse or pony is prone to abscesses, consider:

- Avoiding wet, muddy turnout areas
- Using hoof boots when riding on rough terrain
- Testing for PPID in older horses with recurrent abscesses

Having poultice materials in your first aid kit and knowing how to apply them can also help you respond quickly if an abscess develops.