The NADIS data show that sole ulcer, along with white line disease and digital dermatitis, is one of the three commonest causes of lameness in dairy cattle. The level does not vary to any great extent throughout the year:

**Solar Ulcers - All Cattle**

![Solar Ulcers - All Cattle graph]

**What is a Sole Ulcer?**

A sole ulcer is an area of damaged sole horn, which has completely lost the horn tissue except for the corium, which is the living horn-producing tissue. Although sole ulcer lesions are seen on the surface of the hoof, it is caused deep within the hoof. Sole ulcer occurs when the structures supporting the pedal bone within the hoof weaken. This allows the bone to rotate or sink damaging the underlying horn producing tissue. If this damage is severe enough or persists for long enough, horn production is stopped. As the sole wears this area of damaged horn becomes visible and further damage occurs leading to the presence of a sole ulcer.

**Clinical Signs**

Pain and lameness: 90% in the back foot, with 80% in the outer hind claw.
The sole ulcer tends to occur in a specific area just in front of the heel which lies directly over a projection on the pedal bone

**Diagnosis**
On clinical signs

**Treatment**
Sole ulcers take much longer to heal than white line abscess as there is far more damage to the underlying tissue. The aim of treatment is to prevent the affected area from bearing weight, by removing horn overlying and around the ulcer. Applying a block to the unaffected claw can significantly improve the speed and quality of healing.

Early prompt treatment is vital. Foot trimming is best done by a trained person, there are many good courses available. Ask your vet for information

**Prevention and control**
Preventing and controlling sole ulcer is very similar to preventing white line disease.

A prevention programme for should concentrate on:
1) Ensuring a well balanced diet is fed. Maximise forage intake and if possible feed a TMR
2) Repairing trackways, gateways and feeding areas. Soft, absorbent surfaces such as used in children's playgrounds can significantly reduce white line disease and can be effective if laid in narrow single cow wide strips (provided the cows are allowed to walk at their own pace)
3) Ensure there are enough cubicles (20% more than the number of cows) and they are comfortable to lie in.

There are several good resources on lameness on the net. One of the best is [www.cowdoc.net](http://www.cowdoc.net) which is a very good resource on all types of lameness problems

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The Meat and Livestock Commission is a sponsor of NADIS (National Animal Disease Information Service), which is a network of 40 veterinary practices and 6 veterinary colleges monitoring diseases in cattle, sheep and pigs in the UK.