

Common skin problems in the horse

Although the skin is the most visible of the horse's body structures it is also the most easily overlooked! The skin provides a strong barrier to challenges from outside the body and plays an important role as part of the immune system, it also helps control body temperature and makes vitamin D. In certain parts of the body the structure of the skin changes to perform specific functions, for example the hoof, chestnut and ergot are modified skin structures and the skin of the eyelids is much thinner than on the back.

What are the common skin conditions?

In spite of the exposed position of the skin, it is usually remarkably free of disease. However the skin is also the organ most likely to be damaged accidentally - cuts, bruises and burns are common! It is difficult to say what is the most common skin disease. What is common in some circumstances is not necessarily common in others. For example, ringworm is common in racing yards but is very rare when horses are stabled on their own with no contact with others or poorly managed ponies might all be affected by rain scald in the middle of winter due to poor hygiene and the lack of shelter. Old horses are very prone to develop Cushing's disease but it would be most unusual to encounter this disease in a yard of young racehorses!

How do I know if my horse has skin disease?

There are only a few ways that the skin can react to injury and so many different diseases can have a similar appearance. The main presenting signs of skin disease are:

- Itching (pruritus) - horses may show excessive twitching or swishing of the tail, rub, stamp, nibble or bite
- Hair loss (alopecia) - can be due to self-trauma due to irritation, or due to diseases affecting the hair follicles
- Exudation and crusting (dried exudate) - causing matting and tufting of hair, often due to bacterial or fungal infections
- Excessive flaking or scaling of the skin - a frequent secondary feature of many skin disorders
- Lumps (nodules) involving the skin - may be due to inflammatory conditions or sometimes tumour growth
- Pigmentary alterations:
 - Most commonly depigmentation of hair (leucotrichia) or skin (leucoderma), due to injury or other causes of inflammation
 - Or, less commonly, increased pigmentation of hair (melanotrichia) or skin (melanosis), also after the skin has been damaged by inflammation
- Excessive hair growth - usually associated with Cushing's disease, a condition of older horses and ponies due to a hormone imbalance

Why is my horse itchy?

All horses can feel itchy, particularly when biting flies are around - but it is important to keep a close eye on your horse since anything more than a gentle rub could be the start of something serious. Once a horse has started rubbing it can cause more and more damage to the skin and this can make it very hard to find the original cause. Horses are commonly affected by skin parasites such as lice and mites, but there are other conditions that can also cause itching.

Another very common cause of itching in horses is 'sweet itch'. Sweet itch is caused by an allergic reaction to an insect bite. There are many flies and insects that can cause a problem - although the major culprit is biting midges. Itching is normally seen around the neck and tail where midges bite most often. However, some midges bite the head and the belly line under the horse. Horses sensitive to these insects will rub at these sites. Horses that suffer from sweet itch usually cope better if kept inside rather than outside and away from areas where midges and other insects live, such as ponds, streams and lakes.

Other allergic conditions such as atopic dermatitis due to environmental allergens are less common and food allergy is extremely rare in the horse. There are some conditions such as pinworm infestation and accumulation of skin debris between the teats of mares, associated with overgrowth of a yeast organism, that cause rubbing around the bottom at the base of the tail. This should not be mistaken for the tail rubbing seen with sweet itch.

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How do I know if my horse has parasites?

If **lice** are present they can usually be seen in the haircoat. The most common type of louse feeds on skin debris and scale. Affected horses tend to rub and scratch at the sites where the mites like to live, commonly the neck and tail regions. Itching is usually worse in winter when infestations can be very high. Some lice feed on blood and, if present in large numbers, can cause anaemia. Affected animals are often those in poor condition or suffering from other illnesses. Both types of louse can cause a 'moth-eaten' coat and some infected horses are irritable. Lice are quite difficult to treat and can spread rapidly from horse to horse, so it's important to get proper advice on control from your vet. Do not just buy "louse powder" - it might help a bit but it will not solve the problem.

Mites are much smaller than lice and mostly cannot be seen without special equipment. Mange mites usually live on the skin of the feathered legged horses but can also affect the body. The irritation caused by these mites makes horses stamp their feet, bite at their pasterns and legs and rub against solid objects. Individual horses can be affected in different ways. Some horses have a lot of mites but do not get very itchy, whilst others scratch a great deal but have few mites. If your horse doesn't get very itchy with mites the infestation can be overlooked and can continue in a stable from year to year; whilst if few mites are present it may be frustrating to try to identify the cause of the itchiness. Once a diagnosis is made it is important to kill the parasites if possible by treating both affected and in contact horses. This is not easy and requires the use of off-label products, since there are no UK licensed products for this condition in the horse.

Harvest mites are a problem in certain areas, usually chalky soils, where the adult free-living mite is found. In the late summer and autumn the larval stage of this mite takes a blood meal from any unsuspecting mammal that happens to be passing. They attach at contact sites (legs, face, body in horses turned out) and remain attached for only 2-3 days. Only one or two horses in a group may show signs of irritation, probably due to a component of allergic reaction in those individuals. Again, there is no licensed product for treatment, so advice should be sought from your vet.

Why has my horse got tufts and crusts in the haircoat?

Exudation from the skin, which causes matting of the hair and formation of crusts, is often due to infection. Common problems in winter and early spring include rain scald, mud fever and saddle rash. The most common places for these clinical signs (lesions) to develop are on the back and on the pastern. Most cases are due to bacterial infection, but some are the result of immune problems.

Rain scald is a very common condition caused by *Dermatophilus congolensis*. Skin wetting from rain, long dense hair coat and poor hygiene create an ideal environment for the bacteria to grow on the skin surface. If one horse is infected, others may become infected too. Scabs cause pain and discomfort, and removal of them is often resented and usually leaves a rosy-red area of skin. Treatment of rain scald involves keeping the skin dry after a careful warm water antibacterial wash. It is also important to avoid over-grooming while the skin heals; if the whole area can be clipped this will speed up the healing process. Rugs and blankets should be removed from the horse, as sweating without evaporation and extra warmth will simply encourage the bacteria! Some cases are very difficult to manage, sometimes requiring courses of antibiotics, and affected horses may get repeated episodes.

Saddle rash is normally caused by Staphylococcal infection. It is usually a painful dermatitis most often affecting the back, loins, withers and neck of the horse. It is common in late winter and early spring and usually caused by a break down of hygiene. The combination of a long winter coat, an emerging spring coat, heavy rugs, poor grooming and tack cleaning contribute to its development. There are several forms of the condition, including:

- Focal "acne-like" disease - pustules (spots) develop in the skin; there may be few or many lesions.
- Widespread skin changes with oozing over the surface in some cases.
- A milder form - where Staphylococcal bacteria gain entry to minor scratches (such as sweet itch rubs and tack abrasions, etc).

Once the condition starts it can be extremely painful; the horse may resent being handled or being washed. It is common for the affected areas to expand or seem to spread to other areas - this may be associated with the use of dirty brushes, rugs and other tack. In the same way it can spread to other horses. Diagnosis is usually simple - your vet should take material to examine under the microscope and a swab of the skin to identify what bacteria are present. Sometimes a skin biopsy has to be taken so that the

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bacterial swabs can be obtained from deep inside the skin.

Treatment is always difficult. Washing with warm water and an antibacterial shampoo is helpful once the area has been clipped. In some cases the lesions are so painful that heavy sedation or even an anaesthetic may be needed. Hygiene is imperative. A cotton sheet that can be removed and washed every day is helpful under rugs or saddles but it is far better to avoid any skin contacts at all.

What causes excessive flaking and scaling in my horse's coat?

Flake and scale are quite different from crust - scale is light, grey in colour and very soft and is produced as a normal process of skin maturation. However, many skin conditions can result in alteration of the rate of turnover of the skin and thus an increase in scale production, which becomes visibly evident. There are a few bacterial and fungal infections that result in localised or more general scaling which are usually very well recognised, eg Ringworm (more properly called dermatophytosis) - a fungal infection that appears initially as focal tufting, followed by hair loss and scaling in expanding rings. This is a self-limiting condition that gets better in time (probably 3-4 months) without treatment in most horses, but is infectious to other horses and also to humans and other animals. It can be a recurrent problem in some racehorse yards, with young susceptible horses coming in each year, since spores are very long-lived in the environment and hard to eliminate completely.

Many other skin diseases can be associated with increased scaling, including other infections, immune disorders and even some neoplastic (cancer) conditions.

Why has my horse's hair gone white?

The most common conditions involving loss of colour in the skin and hair are really of no major consequence and are restricted to the skin. These include:

- *Loss of pigmentation* at sites of injury or inflammation: post-inflammatory depigmentation commonly occurs at sites of healed wounds and areas of tack damage, most commonly the saddle area or other harness contact points and predictable pressure points for tack. Certain chemicals can produce this effect, particularly some forms of rubber. There is nothing that can be done to cure the condition and the horse is seldom, if ever, affected by it in any way. This tendency is actually the means by which freeze-branding is effective.
- *Vitiligo* is an immune condition where there is a progressive loss of pigment in and around the eyelids and/or mouth region, anus and genitals. There is nothing that can be done, but it generally causes the horse no problems and in some cases repigmentation may occur. The condition known as "Pinky Arab Syndrome" may well be a form of vitiligo. Again, no treatment can be offered, although the condition may wax and wane.

Remember that any depigmented skin should be protected from exposure to sunlight because pale skin is more susceptible to sunburn and the risk of skin cancer at these sites is higher.

What other skin diseases are important?

Mud fever is classically caused by a single bacterium called *Dermatophilus congolensis*, with crusting and tufting of hair affecting the lower limbs. The term "pastern dermatitis" is usually used for those cases caused by other bacteria. Pastern dermatitis usually involves staphylococcal organisms, often together with other bacteria, and can extend to involve fetlocks and cannon regions. Very similar clinical signs may also be caused by fungal organisms, and parasitic mites and harvest mites can also present in a similar way and then be complicated by secondary infections. In some cases that start with a bacterial infection this can lead to more serious immune-mediated problems, which can be very difficult to treat. Diagnosis is usually made after a careful clinical examination and collection of samples from the skin and the moist surface. Skin biopsy may be necessary in some cases. Treatment of pastern dermatitis involves identifying the primary cause and initiating specific treatment to remove it. Symptomatic treatment of the skin damage may be similar, but without appropriate specific treatment directed at the underlying cause, cases may become refractory and chronic and difficult to cure. Early veterinary attention will help considerably.

Skin lumps are extremely common in horses. They can be broadly divided into cancerous (neoplastic) and non-cancerous (inflammatory) conditions. The most common of the skin tumours of the horse are sarcoids and melanomas. Other causes of lumps in the skin are allergic reactions to insect bites, or less commonly other allergic reactions, or even more rarely a generalised reaction to medicines or internal disease. The advice of your veterinary surgeon should be sought and if there is any doubt as to the cause or nature of

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the lump(s) then biopsies should be taken to enable the pathologist to give a definitive diagnosis. Only with a firm diagnosis can the future outlook be predicted (prognosis) and appropriate treatment initiated where possible.

Skin diseases are common in horses, but many have very similar appearances. Early veterinary attention gives the best chance of a good, uncomplicated diagnosis and appropriate treatment. Many skin disorders are complicated by the use of the wrong treatment or the incorrect use of the right treatment.

If you want any other information on health issues concerning your horse please contact Hampden Veterinary Hospital on 01296 423666 and we will be happy to advise you.