

## Alopecia in Horses

Alopecia, or hair loss, in horses can take on many different forms; but regardless of the cause, the result can often be very stressful for owners and potentially unpleasant for the horse. A thorough examination is often required to give an accurate diagnosis as well as a detailed history of the horse's husbandry; have there been any changes? Is it affecting others in the herd? Is it seasonal?

### **Itchy?**

One important differentiation in cases of hair loss is whether the condition is itchy or not. This is helpful not only in determining whether the alopecia may be self-inflicted, but can also be useful in picking an appropriate treatment option. Other signs that the condition may be self-inflicted other than watching the animal scratch would be evidence of broken hairs on the coat, increased shedding on certain patches on the rug, or evidence of hair on fence posts or the stable wall where the horse has been rubbing. Red skin or scabs are not specific to itchy conditions, but may be a useful indication of how itchy the horse is feeling.

### **Working out the cause**

Outside of the obvious reasons for a horse to lose hair, such as friction from poorly fitting tack or rugs, there are 3 main categories for causes of itchiness in horses; allergic skin disease, infectious causes (that could be bacterial or fungal) or parasitic (e.g. lice or mites). Obviously there can be a degree of crossover, for example in horses with sweet itch where the animal develops, or is born with, a sensitivity to the midge's saliva. In this case the itchiness, and related alopecia, is caused by the allergy which is a result of the parasite, and as many owners are painfully aware, sweet itch can be incredibly itchy for their horses, causing them to rub their hair out.

### **Allergies?**

True allergies in horses are usually diagnosed relatively rarely, which may in part be because there isn't a huge amount of testing, but mainly because allergies causing hair loss (other than sweet itch) tend to be quite uncommon. This said, the list of things that horses can be allergic to is almost endless, ranging from dust mites to pollen to their shampoo. Unless there is an obvious cause for the allergy (e.g. new pasture), the most useful diagnostic tool is intradermal (in the skin) testing. To do this, small amounts of various different common allergens are injected in a pattern, usually along the horse's neck, to see if there is any form of reaction and to identify which one is causing an issue. Treatment for allergies also range. Obviously the best form of treatment is to remove the source of the allergy, but failing that drugs such as anti-histamines or steroids can be used to alleviate the symptoms. Sometimes the horse can gradually be de-sensitised to the allergy using a course of injections which gradually increase the concentration of the dose of allergen until the horse can tolerate it normally.



## Infectious Disease?

The first thing to say about infectious causes of hair loss, is that they are often labelled under misleading names! Take rain scald for example, many people often assume this condition, which is actually a bacterial skin infection, is due to the rain on the horse's back; however it can actually develop when the horse has a rug on when it hasn't even been raining. The condition occurs when the skin becomes warm and moist, leading to an overgrowth of the surface skin bacteria which in turn cause scabby lumps. These crusty lesions then lead to alopecia as the hair comes away with the scabs. Similar to rain scald but on the lower limbs is mud fever. A plague of many horse owners on clay soil, mud fever is a superficial bacterial skin infection caused or at least worsened by the skin becoming constantly wet. Again, hair loss may be seen as the scabs fall off.

Another commonly misunderstood infectious condition is ringworm. Despite the name, there is no link between the fungal skin condition "dermatophytosis" and worms! Ringworm often presents as round, sometimes shiny, scaly, plaques on the skin, often occurring in the autumn and winter months, which can range from being unbearably itchy to having no effect at all. Care must be taken with ringworm because it is incredibly infectious both to other horses, but also to people too! Diagnosis cannot always be made by visual inspection alone, but hair plucks and fungal culture can be used to get a more definite answer. This can be a slow process though as the incubation time for the fungus to grow can be as long as 6 weeks, so often if ringworm is suspected it is better to treat whilst waiting for the culture results come back. A faster diagnosis can sometimes be reached through microscopic evaluation of the hair, but this is not always reliable. Treatment involves a combination of hygiene (washing all the tack, rugs, stables etc.) and bathing the horse with medicated shampoo although the condition is often self-limiting.

Parasitic causes are often easier to diagnose, but not always easier to treat. The most common type of parasite to cause alopecia in the majority of horses is lice. Lice live in the hair and skin of animals and people and although there can be some cross over between species, it isn't usually a problem. There are two different types of mite, both which affect horses, but in different ways. The first are "blood sucking" lice, which often live in and around the mane and tail, although can be found elsewhere. These creatures cause little holes in the skin, which can then become infected, increasing the itchiness further, which then encourages the horse to rub the hair out. The second group are the "chewing" or "biting" lice, which prefer to live in the finer, shorter hair of the flanks and neck, so called because they eat the skin rather than the blood. Both types of lice can often be seen moving through the coat, especially the biting lice, making diagnosis relatively easy; however getting rid of them can be very tricky! Treatment for lice comes in the form of medicated shampoos and sprays, but the most important thing is to remove the lice from the environment with appropriate hygiene.

Another parasitic cause of alopecia is mites. Although less common in lighter horses, feather mites can be a real problem in heavy horses, causing stamping, kicking, self-trauma from the



itching and related hair loss from the scabs coming out. Horses are also susceptible to other types of mite which affect the hair of the mane and/ or body, although less commonly than lice. Treatment for mites is similar to that of lice, medicated shampoos and washes with appropriate hygiene regimes to clean the environment and all the tack/ rugs etc. Clipping the feathers from the larger horses is also a useful step to help those suffering from feather mites.

Apart from the creepy crawlies, an additional causes of hair loss in horses can be from pin worms. These little worms live just inside the anus of the horse, however the damage is caused at night, when the female worm crawls out to lay her eggs around the outside of the anus. This is extremely itchy for the horse, and it is very common to see those affected with a large bald patch on the tail!

### **Something else?**

It is also worth mentioning about sarcoids as a footnote. Although strictly an infectious cause of potential alopecia (they are thought to be caused by the bovine papilloma virus), they differ largely from the bacterial skin infections and so may be considered separately. Sarcoids do not always cause hair loss, and are often not itchy enough to be a cause of self-inflicted alopecia, but depending on the type, they may interrupt the hair growth causing a bald patch to appear. Treatment is varied so it is always best to consult your vet if concerned.

There are of course other, much rarer causes of hair loss not mentioned in the article such as hormonal imbalances and chemical burns, but it is safe to assume that if you are worried about alopecia, and there isn't an obvious cause such as rugs or tack, then your horse would probably benefit from some treatment or a visit from the vet. If you're concerned then you could always take some photos and send them in to your vet for a discussion, but be aware that often we need to see the area in question to be able to give you a better idea of cause and treatment.

