

# Skin and Foot Issues of Small Ruminants

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Skin diseases are common in sheep and goats but especially important for fiber animals, where production and quality of the fiber may be adversely affected. This presentation will address nutritional considerations for fiber production, parasitic diseases (including lice, keds, chorioptic mange, and flystrike), infectious skin diseases (including orf or sore mouth, staphylococcal infections and dermatophilosis), and environmental insults to the skin. In addition, foot problems of small ruminants will be described. The identification and control of contagious footrot are particularly important as this disease is often bought and paid for. Foot problems related to overfeeding will be discussed briefly.

## **Nutritional Consideration for Fiber Production**

### **Protein Deficiency**

When Angora goats are fed inadequate protein, the diameter of the mohair fiber is slightly decreased, but the yield of fiber that can be harvested from the animal is more seriously affected, so underfeeding will markedly decrease profitability. It also will make the animals more susceptible to infectious and parasitic diseases. Fiber growth requires sulfur-containing amino acids methionine and cystine for production of the keratin in the fiber. This can be supplied as inorganic sulfur if adequate energy and nitrogen are available in the diet for rumen microbes to synthesize protein. Rapeseed and fish meal might be used as rumen bypass protein sources.

### **Zinc Deficiency**

Signs of zinc deficiency include parakeratosis of the skin, joint stiffness, excess salivation, swelling of the feet, deformed hooves, small testes, reduced feed intake, and weight loss. Thick crusts develop on the hind pasterns, escutcheon, teats, face (especially around the eyes) and ears. Dandruffy scales may cover the rest of the body and the hair may become greasy and matted. Skin biopsies show hyperkeratosis and parakeratosis. Serum zinc is usually less than 0.8 ppm. Take the sample in a trace mineral tube, as the stopper of a red top tube contains zinc. Diagnosis is often made by response to therapy. It is common to use a commercial supplement, TruCare Z/M, described at <https://www.amazon.com/TruCare-Top-dress-Trace-Mineral-Multi-species/dp/B01K5U7Y0I>

Males require more zinc than do females. Inadequate dietary zinc is often compounded by excess dietary calcium or impaired absorption of zinc, especially in some lines of goats. A reasonable dietary level of zinc to allow for variable absorption is 45 to 50 ppm. The trace mineralized salt fed should include zinc, and male or other nonlactating animals should not be fed the high

concentrations of dietary calcium typical of lactation diets.

### **Copper Deficiency**

Copper deficiency affects the color of the wool of a normally dark-wooled animal. The darker, normal wool will have better crimp. Some suggest keeping a black sheep in the flock to detect copper deficiency early. Goats with copper deficiency may also show a more dilute hair color.

### **Wool Break**

Fever or a severe illness or overwhelming parasitic infection will temporarily stop the growth of wool fibers. The weakened fibers break off at that point, allowing the fleece to be easily pulled off. Wool slip is a different phenomenon, where housed sheep in winter are shorn, then shed the stubble left by the shearer. The cause seems to be stress rather than malnutrition.

## **Parasitic Skin Diseases**

### **Lice and Keds**

External parasites cause pruritus, and chewing or rubbing on fences then damages the fleece or haircoat. Biting lice are tan in color and have a broad head with chewing mouthparts. Sucking lice have a bluish black body (because it is full of digesting blood) and narrow sucking mouthparts. Angora kids with heavy sucking lice infestations can die of anemia. The best time to treat external parasites is "off shears", when the product can reach any parasites remaining on the skin. Permethrins are commonly used as pour-ons and some products such as UltraBoss® are labeled for sheep and goats. Injectable or oral avermectins will kill sucking but not biting lice. They should not be used routinely for control of external parasites, to avoid development of resistance in gastrointestinal worms.

Keds are wingless flies, *Melophagus ovinus*, with piercing mouthparts. They feed on blood. Larvae are retained in the abdomen of the fly and are extruded just before they pupate. The pupal case remains glued to the sheep's wool until the adult fly emerges 3 to 6 weeks later. Shearing removes both the adult parasite and the pupae. Topical permethrin and systemic avermectins are effective. Keds are often (incorrectly) referred to as "sheep ticks".

### **Demodectic mange**

*Demodex caprae* are distinctive cigar-shaped mites. Clinical infection of goats is characterized by distension of hair follicles by these mites in the form of a white tooth paste-like material. Young kids are infected but nodules in the skin rarely become visible before 18 months of age. The size of the nodules may then increase for a year or two, as mites accumulate within hair follicles. The neck and shoulder of 2-3 year old animals are good areas to palpate when looking for demodectic mange. The lesions are not pruritic and the mites only rarely generalize onto the surface of the skin. Animals with healthy immune systems and good nutrition eventually seem to clear the infection, or at least the obvious skin nodules disappear.

Individual distended hair follicles can be emptied by squeezing, inserting a needle, or lancing. Systemic parasiticides such as injectable ivermectin probably will help to clear the lesions on a pet or show animal, but even if the mites are killed the nodules won't disappear overnight. Check that the animal has adequate nutrition (energy, protein, selenium, vitamin E, copper) to support a

good immune response and eventually clear the parasite. Artificial rearing of kids seems to decrease the prevalence of demodectic mange.

### **Chorioptic mange**

Crusty, scaly lesions on the pasterns are very typical of chorioptic mange in goats. The chorioptic mite has relatively long legs and lives on the surface of the skin. It is easily found in scrapings and can be identified by the short pedicels on its pretarsi.

Eprinomectin (Eprinex®) topically is labeled for treating chorioptic mange in cattle, and can be tried on goats but note that because this is an extralabel use, the withdrawals for milk and meat are not zero - your veterinarian should contact FARAD for advice. Lime sulfur baths are another option. The mite is a surface dweller and not readily killed with systemic ivermectin. As it is common for only one animal in the herd to show lesions, there may be an allergic component to the disease. An individual with severe lesions may require corticosteroids and antibiotics (for secondary staphylococcal infection) in addition to medication directed against the mites.

### **Flystrike**

The presence of fly maggots on the sheep or goat is predisposed by wounds, footrot, rain, dirty wool, and a long fleece. Eggs of blowflies, common in the US, are laid on dirty or wet skin, not on healthy skin. The maggots crawling across the skin cause pruritus, and the sheep may run frantically around the pen. Wool is lost and the skin is raw. The maggots work further into the fleece and often transfer from a foot lesion onto the body. Secondary bacterial infections and absorbed toxins can kill the sheep.

Treatment is begun by clipping or shearing around the wound to disclose the full extent of the maggot infestation. Hand shears or Fiskar sewing scissors work well. Cleansing of the wound with a mild solution of pine oil is helpful, as most of the maggots will come out of their holes and drop to the ground. Insecticides and fly repellents such as Catron IV or other permethrins are applied and antibiotics are given if large areas of skin are devitalized.

Docking lamb tails if animals are going to ever be on lush feed, controlling internal parasites that cause diarrhea and fecal soiling of the perineum, and shearing annually are all important measures for preventing flystrike in sheep. During very wet weather, sheep on pasture may need to be treated with permethrin or another insecticide to prevent problems.

Screw worms are fly maggots of species that attack healthy skin. *Cochliomyia hominivorax* has been eradicated from the US by release of sterile males to mate with the females. Every few years a larva reenters the country on a dog or other imported animal; this parasite recently caused the death of many key deer in Florida.

### **Meningeal Worm-associated Skin Lesions**

*Parelaphostrongylus tenuis* is the meningeal worm of the white-tailed deer. Adult worms live on the surface of the deer's brain, and the life cycle includes snail and slug intermediate hosts. Sheep and goats (and camelids) eat the mollusks or larvae in their slime trail and may develop spinal cord or brain signs.

Some animals develop pruritus over single dermatomes, suggesting that a migrating larva is irritating the associated dorsal nerve root. A vertical lesion typically develops behind a front leg or on the side of the neck where the skin has been rubbed raw by scratching with a hind foot. More caudally located lesions are created by chewing. The animal may be ataxic, but does not always show neurologic signs.

Although the skin lesions are not life-threatening, there is always the danger that the migrating larvae will move on and damage a more critical part of the spinal cord or brain. Animals being raised for meat might logically be slaughtered instead of treated. Otherwise, treatment is the same as for the neurologic form of *P. tenuis* - 5 days of fenbendazole at perhaps 25 or 30 mg/kg per day and 5 days of dexamethasone or a nonsteroidal anti-inflammatory drug to decrease inflammation if the parasite is actually killed and to help to relieve the pruritus. For sheep, a meat withdrawal period of 60 days has been recommended after such a protocol, longer if injectable ivermectin was given, but your own veterinarian needs to contact FARAD. Extended milk withdrawals are also required.

## **Infectious Skin Diseases**

### **Staphylococcal Infections**

Coagulase positive hemolytic staphylococci such as *Staph aureus* cause localized or generalized skin infections in small ruminants. One form involves the eyelids and is termed "periorbital eczema". Young animals sometimes develop transient pustules on lips, perineum, or the underside of the tail, due to follicular infection with hemolytic staphylococci. In lactating does, pustules form on the teats and a moist dermatitis may persist between the udder halves. *Staph aureus* or related organisms secondarily infect any skin lesion on a sheep or goat, so culturing this organism from the lesion does not confirm the diagnosis. Your veterinarian needs to rule out other infections such as sore mouth or dermatophilosis, as well as zinc deficiency.

When lesions are localized, as on the udder or underside of the tail, cleanse the skin and then apply an antibacterial ointment. Systemic antibiotics are needed if the dermatitis is severe or generalized. Penicillin or oxytetracycline subcutaneously for 10 days would be a starting point if culture and sensitivity were never done.

### **Dermatophilosis**

*Dermatophilus congolensis* is a filamentous bacterium that attacks the epidermis of the skin, causing scaly to crusty dermatitis especially if the skin becomes wet. Papules progress to crusts and scabs on the ears or nose of lambs and kids. In older goats, crusts are more common on the lower limbs or lips and may be complicated by the soremouth virus. On sheep, scabs thicken and harden in the wool, giving rise to the name "lumpy wool". Goats also sometimes develop this rain scald type of lesion on the back, especially when not provided with shelter from the rain.

Long acting oxytetracycline at 20 mg/kg will cure sheep of lumpy wool if given at least 8 weeks prior to shearing, so that the wool has time to grow further until the scabs lift off the skin and can be removed by shearing. Wet conditions must be corrected. Repeated lime sulfur dips allowed to dry on are helpful in pet goats, in addition to oxytetracycline. The infection is potentially zoonotic.

Providing shelter from the rain will go a long way in preventing dermatophilosis in goats. It also is helpful to dry the ears of Nubian kids that are pan fed.

### **Dermatophytosis - Ringworm**

Several fungal species can cause ringworm in small ruminants. Lesions are often circular and may have light flakes or thick crusts. A biopsy specimen will show arthroconidia fungal forms lined up along the hair shafts. The ringworm species are zoonotic, so the owner as well as the veterinarian should wear gloves when handling affected animals.

Club lambs (raised by 4-H club members) are particularly susceptible to ringworm because they are closely shorn ("slick shearing") and repeatedly washed, which damages the skin. Clip and wash the sheep as little as possible. It is advised to disinfect shearing equipment between sheep in infected herds. Equipment such as halters and blankets as well as pens on the fair grounds can be contaminated with fungal spores. Clean equipment and stalls with bleach diluted 1:10 in water. Avoid housing animals where ringworm has occurred in the last few years, as spores survive a long time.

Ringworm will generally resolve in 2 to 4 months without treatment in well-fed animals with a healthy immune system. Exposure to dry, sunny conditions is desirable. Various products have been used to treat affected animals to try to hasten their recovery, usually without proof of efficacy. Over-the-counter products for treating ringworm in humans may be effective, but the veterinarian will be responsible for establishing an appropriate meat withdrawal period. This is especially problematic if the club lamb is to be slaughtered after its last show. Lime-sulfur has been used but would stain the wool yellow.

### **Soremouth - Orf - Contagious Ecthyma**

Soremouth is a very common zoonotic virus infection of sheep and goats. Most young animals on endemic farms become infected. Crusts appear where virus was inoculated into the skin, most frequently on the lips but also on the teats (from nursing by infected lambs or kids) or on the scrotum or feet, when the infected animal nibbles at itself. The crusts typically last 4 or 5 weeks, and then the lesions heal with no residual scarring. Secondary staphylococcal infection of the scabs is to be expected. Occasionally lesions develop inside the mouth; these infections may be fatal. Staphylococcal mastitis is a very serious sequela of teat end infection.

With most strains of the virus and well-fed goats, signs are minimal and easily missed. Other strains, especially in Boer herds, cause much more severe or prolonged infections. It is not yet clear if the phenomenon of persistence depends on the genetics of the goat or of the strain of virus involved. Browsing on thorny plants will contribute to more severe infections. In some outbreaks enlargement of local lymph nodes is so dramatic that the owner suspects caseous lymphadenitis or bottlejaw from parasites.

There is no specific treatment for this viral infection. If crusts are extensive or the animal seems to be overwhelmed by secondary bacterial infections, then antibiotics are given. Soft feed may benefit animals with severe mouth lesions. Leaving infected lambs and kids alone usually works well if the dams are already immune, such that teat infections are unlikely.

Orf vaccines available commercially are usually live virus vaccines and cause infection of the vaccinated animal. The vaccine is administered by scratching the skin and brushing the suspension of virus into the small wounds. Possible locations are the inside of the ear or the inner thigh. Do not use the thigh in lactating females, as lesions may spread to the udder, with resultant mastitis. In goats, the underside of the tail is often used, and permits easy monitoring for the development of scabs that indicate a successful “take”. Colorado Serum Company (1-800-525-2065, <[http://www.colorado-serum.com/csc\\_home.html](http://www.colorado-serum.com/csc_home.html)>) makes an ovine ecthyma vaccine that is of tissue culture origin. Another commercial vaccine, using a different strain of virus, is available from Texas. Unused vaccine can be frozen. Some owners make their own, herd specific (autogenous) vaccine by harvesting crusts, soaking them in oil, and rubbing a suspension of the crusts into skin abrasions. This avoids introduction of a different or more virulent strain with a commercial vaccine.

Show animals are often vaccinated to avoid development of the disease during the show season. In this instance, vaccination should be done at least 6 weeks before the first show, to allow ample time for all vaccine scabs to clear. Animals with the disease may not be exhibited at shows or fairs. Vaccinated animals and those recovered from a natural infection may remain subclinical carriers of the disease. This seems to be most commonly reported with rams, perhaps because they are most apt to be purchased at great price and introduced to a naive flock.

If the disease appears in purchased animals during the quarantine period, all new arrivals could be vaccinated and held apart for a further 6 weeks to allow the vaccine scabs to drop off. Because some goats are inapparent carriers of the virus, introduction may occur despite a 3 week quarantine. If soremouth is already endemic on the farm the owner might choose to vaccinate all incoming animals when they first arrive. An outbreak in a previously naive herd may result in immunity and disappearance of the disease, especially in herds with only one parturition period a year. Accelerated herds and those that lamb or kid year round can expect the virus to remain active on the farm once it has been introduced by purchase, showing, or vaccination.

Gloves should be worn when vaccinating or working around infected sheep or goats to avoid contracting this zoonotic infection. The lesion in people is raised with a vesicular or pustular center surrounded by a zone of reddened skin. The lesion is mildly itchy. Physicians who lack a rural background usually know nothing about this disease. Their biopsy site is the last to heal. Secondary bacterial infections may require antibiotic treatment, but crusts usually dry up and fall off without treatment in 5 or 6 weeks, leaving no scar.

## **Environmental Insults to the Skin**

### **Frostbite**

Newborn lambs or kids, not yet licked dry and fed, may suffer frostbite to their ears and hind feet. Drying with a towel will help to prevent this. Immediate first aid involves rapid thawing in warm water (106° to 111°F) or with a hair dryer on low. Avoid rubbing the injured tissue. Beef calf producers report that freezing of the ear tips can be prevented by using stockinette or duct tape to keep the ears closely apposed to the warmer head during the first days.

### **Photosensitization and Sunburn**

If a photodynamic agent builds up in the blood and then reacts with light of appropriate wavelength, a severe burning reaction can occur. The agent may be a preformed toxin or phyloerythrin, a byproduct of chlorophyll metabolism, building up because of liver disease. Check with extension offices in your state for a list of local plants that are associated with photosensitization. Lesions are most severe in areas not protected by long wool or hair, such as the face and ears, perineum, or udder. The entire sheep can be affected if it was recently shorn. For treatment, remove the animal from exposure to the sun and poisonous plants. Antibiotics and fly repellants may be needed while the skin lesions are healing. If the liver disease that caused secondary photosensitization progresses, the patient can be expected to die even though protected from exposure to sunlight.

Small ruminants, like people, can experience sunburn if turned out to pasture in the spring after a long winter in the barn, without being given time to adapt to the sunlight slowly. This is most likely to occur on the teats of light-skinned does. An iodine teat dip might block some of the light. Bag Balm® or other soothing ointment would make the teats more comfortable and facilitate milking.

### **Udder Warts and Squamous Cell Carcinomas**

Warts occasionally appear on the udder of light-skinned Saanen goats, especially in regions with intense exposure to sunlight. These warts appear to be contagious although a virus has not been conclusively demonstrated. The warts may regress, reappear (or not) the next lactation or persist. Some warts transform into squamous cell carcinomas. Mastitis and flystrike are possible complications.

Squamous cell carcinomas also develop in exposed skin of the perineum or ears. These tumors are common in Angora goats and other breeds with light skin in situations with prolonged exposure to intense sunlight. Tumors on the ear tip can be managed by cropping along a diagonal crush made with a Burdizzo. Tumors of the anus and vulva probably warrant culling, except for pets, and will certainly attract maggots.

### **Urine Scald**

Bucks in the breeding season will urinate on their face and front legs. This at the very least causes a yellow discoloration of the hair, and sometimes a moist dermatitis also develops. Petroleum jelly or Bag Balm® can be smeared on the nose so that the urine will run off better. Keep the hair on the front legs trimmed short. Males that have been treated for urolithiasis with a perineal urethrostomy or bladder marsupialization will probably suffer urine scald and require continuous skin care. Desitin® is helpful.

### **Problems Associated with Shearing**

The very first problem is finding a shearer who will do Angora or Cashmere goats, or even small numbers of sheep. Treat your shearer very well, having the animals caught in advance and a clean, well-lit working area. Provide coffee or cookies or whatever it takes to make the shearer happy. Try to coordinate with other producers to decrease travel time for the shearer. Do not sell fiber animals to beginners without explaining the need for shearing and how to locate a shearer who will come to the farm.

The next problem is that the shearer can introduce diseases from other farms to your flock. This can be from contaminated shoes or clothing or from germs on the shearing equipment, especially the bacteria that cause caseous lymphadenitis abscesses (CL or CLA). It is very important that the shearer disinfect his blades before shearing the next flock, and also if an abscess is opened during the shearing process. A few small skin nicks are common when small ruminants are shorn, but large ones may require sutures and a search for a new shearer.

## **Footrot**

Footrot is a synergistic infection of two bacteria, *Dichelobacter nodosus*, which won't survive long off the animal, and *Fusobacterium necrophorum*, a ubiquitous gastrointestinal inhabitant. Normal healthy skin is not susceptible to infection. The initial invasion by *F. necrophorum* requires prior skin damage such as water maceration. Outbreaks usually are confined to regions with sufficient annual rainfall to make lush pastures in warm humid months. Transmission occurs only in warm weather, but established infections persist in the winter. Foot rot can only occur if *D. nodosus* is available, and the organism can survive a maximum of 7 days in feces, soil, or pasture. The Australians say a maximum of 5 days. If just *F. necrophorum* is present, the sheep heal spontaneously when the feet dry out.

Footrot causes debilitating lameness and loss of production. In virulent foot rot, a mild inflammation of interdigital skin is followed by a break in the skin-horn junction on the axial aspect of one or both digits. Separation progresses and may involve the whole sole and outside wall. The hoof may become long and misshapen over months. The sheep may graze on its knees. There is a distinctive fetid odor

Benign foot rot is also called nonprogressive foot rot or foot scald. The infection remains in the interdigital space or there is mild separation of the soft horn at the heel and posterior sole. Lameness is less severe. There are strain differences in *D. nodosus* but breed differences in susceptibility also exist. For instance, in Australia Merinos are much more susceptible than British breeds.

Interdigital lesions (scald) may occur alone in the flock if just benign strains are present or if virulent strains were only recently introduced, such that undermining has not yet developed. Lesions may also be restricted to the interdigital space if environmental conditions are not favorable for virulent foot rot. Reexamine marked sheep after 10-14 days of wet weather or place sheep on wet straw or wet foam rubber mats in small pens for 10-14 days, with the temperature above 10°C to exacerbate the lesions. Footrot also may not be accompanied by underrunning of the sole if only goats are present. Both benign and virulent strains usually remain on the skin between the toes in goats.

Examine all feet on all sheep and sort the sheep into infected and uninfected groups. Do only minimal trimming at this stage, as aggressive foot trimming delays healing. Put all the normal sheep through a foot bath and out onto clean, uninfected pasture. Treat all the infected sheep intensively, house in a clean and dry place, and continue to foot bathe at frequent intervals. This is labor intensive and back-breaking work unless good handling facilities (including a roll-over chute) are available.



Foot baths are used to treat many animals at one time and to limit the spread during warm wet weather. Baths are also used to control foot rot under environmental conditions that favor spread. Copper sulfate 10% (16 pounds in 20 gallons of water): toxic if drunk, especially to sheep. Zinc sulfate 10%, preferably with wetting agent (8 pounds in 10 gallons water plus 1/3 cup laundry detergent). Zinc sulfate is also toxic if drunk. One hour soaks with detergent give excellent penetration.

A home-made wooden foot bath works well, or purchase a plastic bath - put dirty wool tags into the bath to limit splashing and discourage drinking the bath solution. Other topical treatments include a dry bath of 10 pounds zinc sulfate in 90 pounds lime, placed in a doorway or around a feeder. Topicals that are sprayed or painted on include zinc sulfate (1/4 pound in 1 quart water), copper sulfate (1/4 pound in 1 quart vinegar), and oxytetracycline in alcohol. Long-acting oxytetracycline is commonly given as a systemic antibiotic. Use antibiotics to eradicate foot rot during the dry season, but don't give them to clinically normal animals, as this makes detection more difficult and hinders identification/culling of subclinical cases. The exception to this is if you and your veterinarian have decided to try a herd eradication program where every sheep or goat on the farm is treated at the same time with a newer antibiotic such as tulathromycin. This can only be done in non-dairy animals and when nothing will go to slaughter for several months. Your veterinarian will have to consult with FARAD for meat withdrawal intervals.

The best treatment for animals with deformed feet or for persistent offenders is trailermycin. (Cull!)

Any purchased, borrowed, or boarded sheep should be quarantined for 3 weeks, foot trimmed, treated (foot dip and systemic antibiotics) as if infected, and re-examined at the end of the quarantine. Don't buy from an infected flock, even if the purchased sheep look healthy - such animals, even though quarantined and treated, may introduce the infection. If possible run the new sheep as a separate band until warm wet conditions would have permitted the transmission of the disease and inspection verifies that the group remains foot rot free. Sterilize trimming equipment between groups and farms. No effective vaccine is available in this country. Volar® vaccine (for cattle footrot, *Fusobacterium*) is NOT useful for ovine footrot.

### **White Line Abscess**

Foot abscesses occur suddenly but sporadically and cause severe lameness in a single foot of a single sheep or goat. Infection tracks up from a puncture wound of the sole or damaged area of white line to eventually break out and drain at the coronary band, at the top of the hoof. The junction between skin and hoof of each claw should be palpated for softness, swelling, or localized pain. If a ventral entry point for the infection is not readily identified and opened, the foot can be wrapped with a drawing salve (under a piece of latex glove) to speed drainage. If the entire circumference of the coronary band is swollen and painful, septic arthritis of the nearby joint may be present instead and may eventually require amputation of the affected claw.

### **Foot Problems Associated with Over Feeding**

Laminitis or founder is a very common problem in small ruminants, especially pets. The

condition can follow a grain overload/toxic indigestion incident or toxemia due to a severe infection such as mastitis or metritis. Initially the animal is reluctant to rise and walk or remains for prolonged periods on its carpi (knees). The feet may feel warm and tender. With chronicity the distinction between wall horn and sole horn is lost. The hooves become long and blocky with an excessively thick sole. In other cases a separation develops between the wall horn and the inner layer on the side of the toe. A pocket develops that becomes packed with dirt.

Treatment of acute laminitis will include attention to systemic diseases such as grain overload or infections. Analgesics should be given. In pet animals that will not be used for meat or milk, meloxicam at 1 mg/kg orally once a day is commonly used, but the veterinarian still needs to check with FARAD and specify meat and milk withdrawals. Flunixin meglumine at 1.0 mg/kg IV or SC once or twice a day is sometimes used in acute cases. Deformed and overgrown hooves must be trimmed or rasped frequently, ideally every 2 to 3 weeks, for 6 to 12 months before the normal length and structure of the foot are restored. If wall separation has occurred, the wall should be trimmed off in a semicircle to the dorsal limit of the pocket.