

Equine

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Proper Basic Hoof Care

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Equine hoof care is too often “out of sight, out of mind.” However, horse owners must realize that for maximum horse health and longevity, through hoof and leg soundness, regular hoof care is a must. This publication addresses the needs and procedures for proper hoof care and shoeing. All horses need regular hoof care, but not all horses require shoeing. This information will benefit horse owners by indicating what to look for in both proper trimming and shoeing.

First Trimming

Foals should be trimmed for the first time at one or two weeks of age. Not all foals are born perfect in their hoof and leg structure, and even for those that are, hoof care needs to start at an early age to maintain correctness. Trying to correct leg and hoof deviation after a horse is older than one year will usually cause more long-term damage than it will help.

Some foals are either toed out or toed in, and without the early trim, will eventually become permanently crooked and/or even more deviated from the ideal. Foals are born with pointed front hooves to aid in delivery positioning and tearing the placenta at birth. Foals that are allowed to

continue with the pointed front hooves (Figure 1) will deviate themselves over time as they learn to walk either toed out or toed in, rather than being able to break straight over the front of the toe.



Figure 1.

A quick trim squaring the toe and removing the pointed nature of the front hooves and hind

hooves, as necessary, will aid the foal with correct leg conformation (Figure 2). A square toe will help the hoof break over the center and establish or maintain a more correct “way of going.”

Early trimming has the greatest impact on correcting deviations and maintaining correct hoof and leg structure.



Figure 2.

A Point to Remember: “All hoof and leg deviations from the ideal, get worse with neglect of hooves and excess growth; and can even become more deviated in their form and function.”

...Scott S. McKendrick

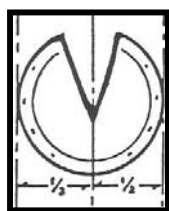
Corrective trimming can help correct and/or minimize leg and hoof deviations if applied within the first year of age.

Trimming

Balance, balance, and balance are the primary concerns and objectives when trimming and shoeing a horse. A balanced hoof and lower leg are the primary desired results of a properly

trimmed and shod horse. A balanced hoof will have equal medial/lateral size and shape (Figure 3), along with anterior/posterior balance (approximately one-half hoof forward and rear of the widest part of the hoof) (Figure 4). The balance of the lower leg can be determined by drawing an imaginary line that bisects equally the cannon bone, long pastern, short pastern and coffin bone or hoof from a frontal view (Figure 5).

BALANCE BALANCE BALANCE



Medial/lateral
Figure 3.

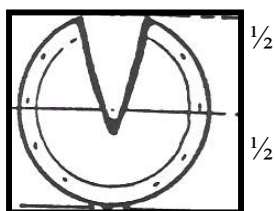
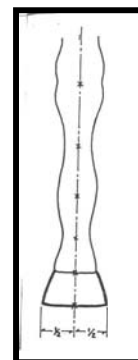


Figure 4.



Anterior/posterior

Figure 5.

Mature horses also need trimming to maintain soundness. Different horses and different breeds have varied shoulder/pastern/hoof angles. Owners and farriers should trim to keep those angles consistent, whether sloping, ideal, or stumpy (Figure 6).

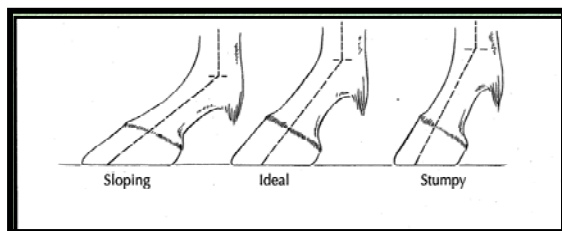


Figure 6.

The key to proper trimming is maintaining those angles by correct toe and heel length. Most horses require trimming more toe than heel; however, some horses will grow more heel and will need to have their heel shortened to set the hoof down to maintain the proper hoof/pastern axis (Figure 7).

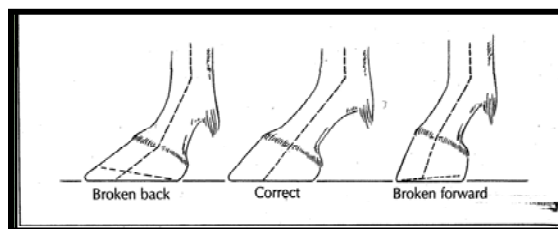


Figure 7.

A general rule for frequency of trimming non-use or light use, unshod horses is every 10-12 weeks. Horses adapted to performing with trimming only will require more frequent trimming with less hoof removed each time. In many cases, hooves are ready to be trimmed again between 5 to 7 weeks. The educated horse owners can help themselves by carefully rasping any flares, or “taming back” any flares, every two

weeks or as needed between visits from their regular farrier. Owners must realize that the following factors could affect this schedule:

1. **AGE OF HORSES** Younger horses tend to grow hoof faster than older horses.
2. **CLIMATIC CONDITIONS** Hooves grow slower in cold winter months.
3. **NUTRITION** Horses that are borderline on intake of adequate nutrition

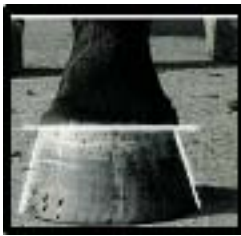
will grow less hoof than horses receiving adequate to excess nutrition.

4. **ENVIRONMENT** Although horse hooves generally grow at a constant rate while temperatures are above freezing, horses kept in soft pastures will appear to grow more hoof than horses kept in a rocky or harder terrain because of less natural wear.
5. **EXERCISE** Well fed and well exercised horses will tend to have healthier hooves than those that are kept in a stall with little or no exercise.

Although 10-12 weeks is a general guideline for frequency of hoof trimming for non-use or light use, unshod horses, owners need to manage each horse's hoof care based on its

individual needs. Horses maintained to the "barefoot trim" ideal will need minimal amounts of hoof trimmed off each time, but at more frequent intervals.

A properly trimmed hoof should have a hairline or coronary band level with the ground (Figure 8). Any flaring of the hoof wall should be trimmed to show equal and straight slopes on both the medial and lateral sides of the hoof (Figure 8). The heel angle and toe/pastern/shoulder angle should also be very close to the same angle (Figure 9).



*Front view –
check coronary
and wall lines.*

Figure 8.

*Lateral view –
alignment of hoof
and pastern.*

Figure 9.

Shoeing

The same general hoof growth factors affect shod and trimmed horses with the exception of environmental wear. A general guideline for frequency of shoeing (trimming and resetting) a horse is every 6-8 weeks, with the age of the horse causing the major differences in schedule.

Proper shoeing is basically proper trimming (hoof wall and sole preparation) with the addition of a shoe of some type, applied for added hoof protection. Proper shoe application includes fitting a shoe to a properly trimmed and shaped hoof, not fitting the hoof to a generically shaped shoe pattern right out of the box.

Shoes may be steel, aluminum, plastic and/or various components of these. Shoes are

usually nailed on with the proper size of nail, but may also be glued on.

Before shoeing, the hoof must have a balanced trim. A correct size of shoe must then be shaped for proper fit and attached. Correctly sized shoes should extend around the circumference of the shaped hoof wall long enough to cover the heels, but not so long as to provide an opportunity for the heel of the shoe to be stepped on or pulled off. The shoe should be adequate in width and length for the size of horse and the horse's primary use (Figures 10a, 10b, 10c, 10d, 10e).

The regular shoe is held in place by short nail clinches about $\frac{3}{4}$ " up the hoof wall. Clinches (the cut off and bent over portion of the nail) should be square, not too coarse, about the width of the nail, and should be in a straight line indicating the professional skills of the farrier.



Figure 10a.



Figure 10b.



Figure 10c.

Balance and proper shoe application. Proper shoeing includes neat clinches in a straight row, proper balance and angles of pastern and hoof, and adequate shoe lengths to properly cover heel.



Figure 10d.

Shoe too short, lacks heel coverage and support



Figure 10e.

Shoe too long, easily stepped on and pulled off.

For maximum hoof health and heel expansion, nails should not be placed posterior to the widest part of the hoof. In some cases, this may support the use of only the front three nail holes, per side, on a pre-manufactured shoe.

Another key, and sometimes overlooked, expectation of a proper shod hoof includes adequate heel expansion or widening of the shoe beyond the hoof width from the widest part of the

hoof around to the heel (Figure 11). Depending on the size of hoof and the use of the horse, the heel expansion of the shoe may be 1/16"-1/8" wider than the hoof (Figure 12). Proper utilization of heel expansion in the shoeing process will maintain the hoof up and on the shoe (not spreading out over the shoe as the hoof grows and expands) and will increase the life of the shoeing job.

Heel expansion starts at the widest part of the hoof and follows all the way around the heel. (from arrow to arrow on each side)



Figure 11.



A nickel standing on the shoe demonstrates proper expansion width of the shoe at the heel.

Figure 12.

There are many more specific hoof trimming and shoeing treatments for such problems as founder or laminitis, long toe/low

heel syndrome, Navicular disease/syndrome, club hoof and more. There are also diseases of the hoof, including thrush, white line disease,

abscesses, and more, that also require appropriate treatment. For additional horse hoof trimming and shoeing information, contact your local Utah State University Extension office, your local professional farrier, or the USU Equine Team Web site at <http://extension.usu.edu/equine/>.

Remember:

BALANCE ** BALANCE ** BALANCE

Owners and Farriers Working Together For the Betterment of the Horse and Hoof

WHAT CAN OWNERS DO?

- Select horses with good hooves.
- Maintain balanced, proper sized hooves for horses. Keep hooves free of defects.
- Keep corrals clean and as dry as possible, with no mud holes for moisture.
- Provide adequate nutrition and exercise.
- Trim/shoe on a regular and appropriate schedule with a competent farrier.
- For non-use or light use unshod horses, trim hooves every 10-12 weeks (rasping flares every two weeks will aid in proper hoof care and shape between regular farrier visits) or shoe every 6-8 weeks.
- Trim and square new foals' toes at a few weeks of age.
- Train foals/horses to stand for shoeing.
- Clean out hooves daily.
- Treat thrush if needed with commercial anti-thrush product or with a 1 to 10 part mixture of either bleach or Lysol and water.
- Avoid extended use of hoof polishes.
- Use hoof moisturizers as needed.
- Allow plenty of lead time in scheduling your farrier and pay promptly for services.
- Provide a clean/safe/lighted/comfortable work area for farrier.

WHAT CAN FARRIERS DO?

- Provide prompt and professional service.
- Show up when scheduled on time!
- Patient treatment of horses.
- Proper technique and skill level for application.
- Fair price according to experience of farrier, cooperation of horse, and application required.
- Ability and willingness to answer questions and explain techniques.

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