The Equine Digit Support System

Instruction Guide

· Contents ·

Third Edition

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Work-Up Form Orientation

1) The Equine Digit Support System Work-Up Form is designed to help with communication between farriers, veterinarians and horse owners.

2) Accurate pre-treatment data will establish a starting point to monitor progress.

3) Assistance can be given more successfully if accurate records are kept.

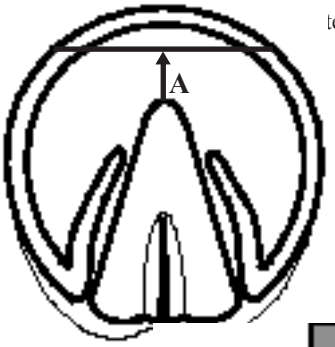
4) Hoof reconstruction will be easy to see from one reset to the next if a new Work-Up Form is filled out each time.

5) The data required from Work-Up Forms will help everyone to better understand and treat severe equine lameness in the future.

6) We encourage you to video tape you first cases, especially those of a serious nature. Please record short segments of stance, foot fall and hoof preparation procedures. Short clips of hoof testing and Impression Material trimming are also important. Finally, a good view of shoe placement will provide a good reference for you as well as the staff of EDSS, Inc., if assistance is required.

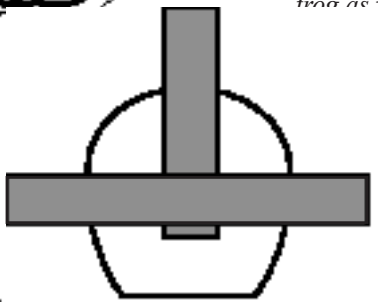
7) Please keep track of the Work-Up Forms and video tapes so that they are easy to access and view when resets are scheduled.

Styrofoam Application

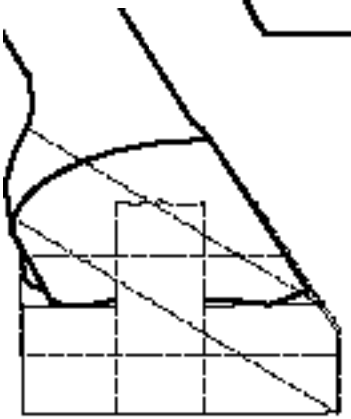


tep 1: Only debris the foot of loose dirt and sole pieces that can be cut away easily. Using hoof testers, start at the toe and test rearward at 1/4" intervals, stopping when you get to the most painful region of the toe. From the most painful area, measure forward about 3/8". This will be the location to cut or rasp a 15 to 20 degree rocker (usually about 1" to 1.25" from the tip of the frog). (Fig. 1-A)

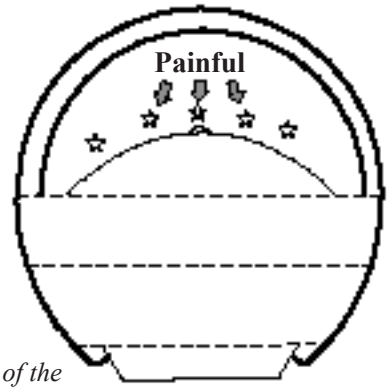
Warning: *Do not get closer than 3/4" from the tip of the frog with your hoof testers. If you have not reached the most painful area at that distance, use the measurements of 1" to 1.25" ahead of the tip of the frog as your breakover location.*



Step 2: Before going to the foot, place two pieces of duct tape on the bottom side of the Styrofoam pad, in a cross pattern. Leave 3" to 4" hanging over each side. These will be your holding tabs.

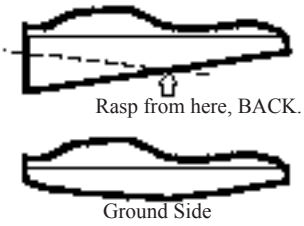


Place the Styrofoam pad on the foot so that the back of the pad is lined up with the back of the frog. There can be as much as an inch left ahead of the toe. Rasp the top edge of the pad at an angle so that it continues at the same plane as the hoof wall. Apply duct tape horizontally around the bottom side of the foot and pad at the same time. Make at least two good wraps over the heel bulbs well onto the hair. (Make sure you hold the pad firmly while you make the wraps so that the pad does not twist.)

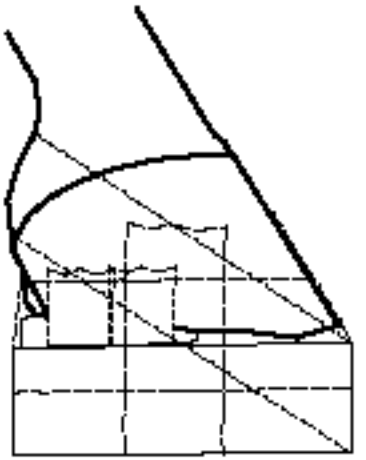


Step 4: After 24 to 48 hours, the Styrofoam pad should compress to a thickness of about 3/4" (this may take more or less time depending on the activity of the horse). Remove the pad and again, test the foot for the most painful areas. Trim the pad to a corresponding line that is about 1/4" behind the most painful areas. ***(It is seldom the case that the Styrofoam is cut much behind the apex of the frog.)*** Tape the trimmed heel portion back in the foot with a couple pieces of tape.

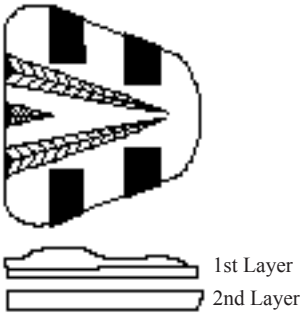
Note: *Keep in mind that you only want the Styrofoam on the portion of the foot that can tolerably bear weight. In most laminitis cases that will be the back portion of the foot, as illustrated.*



ote: *If the Styrofoam compresses substantially more at the toe than at the heel, it will be important to de-rotate the compressed pad. Start by removing the protective layer of tape on the ground surface. Begin at the middle of the pad and rasp toward the back as illustrated.*

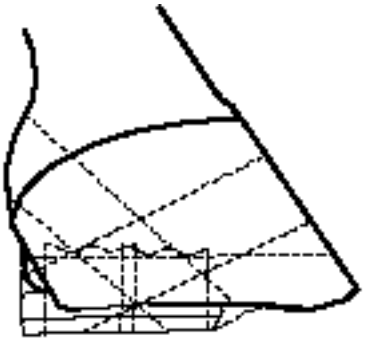


Step 5: Tape a new Styrofoam support block on the foot over the original trimmed and compressed heel piece. Remember to make at least to good wraps over the heel bulbs.



Step 6: Remove both layers from the foot when the 2nd layer has compressed to about 3/4 of an inch. Trim the 2nd layer to the same shape as the 1st, de-rotating if necessary. Tape the two layers together with a couple pieces of tape, making sure that the tape does not get into the ridges and grooves left by the bars and commissures.

Step 7: Using a couple pieces of tape, attach the combined 1st and 2nd layers to the bottom of the foot. Then, using some Elasticon tape (preferably) or duct tape, secure the layers to the foot with several wraps across the bottom and a few good wraps over the heel bulbs.



Note: *For most cases, 2 layers of compressed Styrofoam will be sufficient. Keep them protected from water damage and they should last until the patients condition stabilizes. If the horse is still uncomfortable, a 3rd layer can be applied, but it will not need to be trimmed once it is compressed.*

EDSS Hoof Preparation

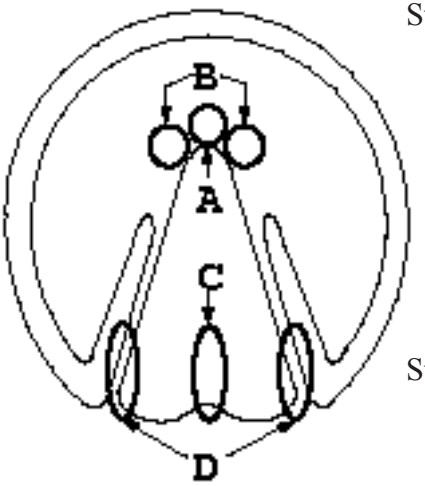


Figure 2.1

Step 1: Find the frog/sole juction at the frog apex. (Figure 2.1-A & B) (Probe if necessary.)
A) Remove any excess sole in this area that is loose and comes out easily.
B) In the 3rd reset, possibly remove only the front portion of the bars that are attached or welded to the tip of the frog.

Step 2: Find the true frog base at the *frog buttress* and *central sulcus* (Figure 2.1-C & D) (Probe if necessary.)
D) Remove all frog material that is welded at the heel or seperates from a chalky layer.

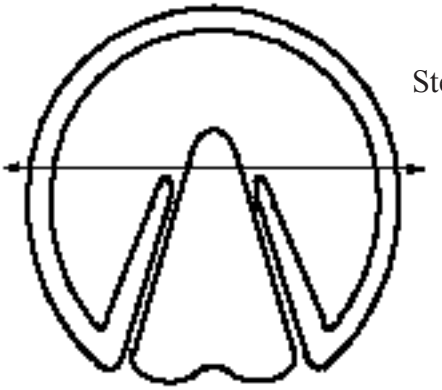


Figure 2.2

Step 3: Draw a line across the foot 3/4" behind the frog apex. Continue that line to the outside of the hoof wall on each side. (This will be known as the "*De-Rotation Line*".)

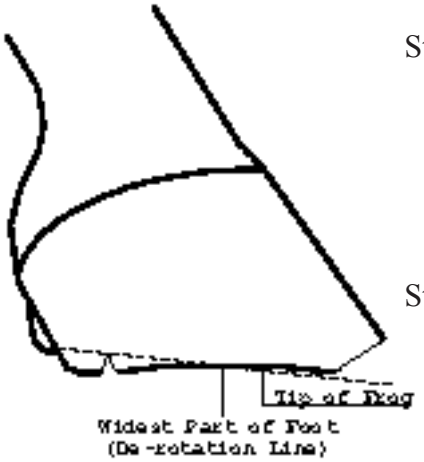


Figure 2.3

Step 4: Notch the hoof wall to the live sole depth at the heel. Draw a line from the marks at the widest part of the foot through the notch, to the end of the heel.

Step 5: Trim the foot only in the area behind the *De-Rotation Line.* *Leave the trailing portion of the nipper blade out of the foot on your first cut.

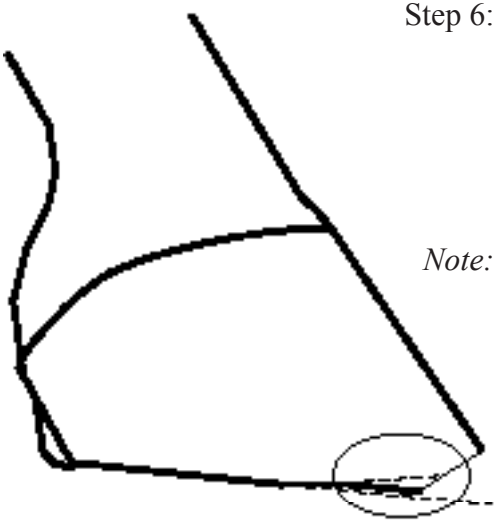


Figure 2.4

Step 6: Remove only the obvious excess hoof wall at the toe. *Do not rasp the wall down to the level of the sole ahead of the De-Rotation Line.

Note: **Do Not** remove any of the bars that are not attached to the frog at the apex. The *hoof wall* and *bars* must be prepared to the same level in the area behind the widest part of the foot.

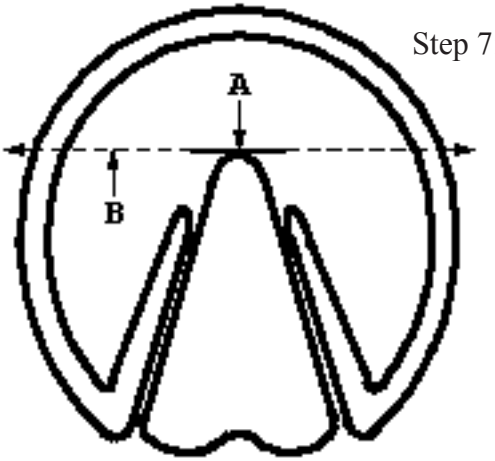


Figure 2.5

Step 7: Draw in the ***"Shoe Placement Line"*** at the frog apex.

A) A short line for Laminitis.

B) A line across the foot with outer hoof wall reference marks for Navicular Disease and all other applications.

Impression Material Application

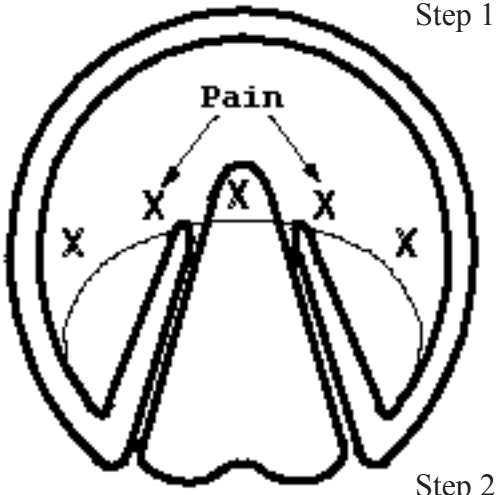


Figure 3.1

Step 1: **(For Laminitis)** Test the foot for pain over the sole. Draw a line on the sole 1/4" (or less) behind the most painful spots found with the hoof testers.

(For Navicular Disease) The Impression Material will not be trimmed. It will be left to cover the whole bottom of the foot.

Step 2: Use the Impression Pads that correspond to the shoe size you selected.

Step 3: Pick the side of the pad that best fits the foot.

Step 4: Place tape on the pad before preparing the Impression Material.

Step 5: Use the colored portion of the Impression Material to determine 1/2 of the total amount needed for your project.

Step 6: Add an equal portion of the white material and blend them together as quickly as possible (30 to 45 seconds), but no more than 75 seconds in 70 degree temperature. It is very important to stretch, fold and blend the 2 colors until there are no more streaks.

Step 7: Apply the blended material to the foot, attach the pad and allow about 10 minutes to cure (set-up).

Step 8: Remove the Impression Pad and trim the cured material to the arched line behind the most painful spots **(in Laminitis cases)**, or re-draw the Shoe Placement Line from the marks you made on the hoof wall **(in Navicular Disease and all other applications).**

EDSS Shoe Fitting

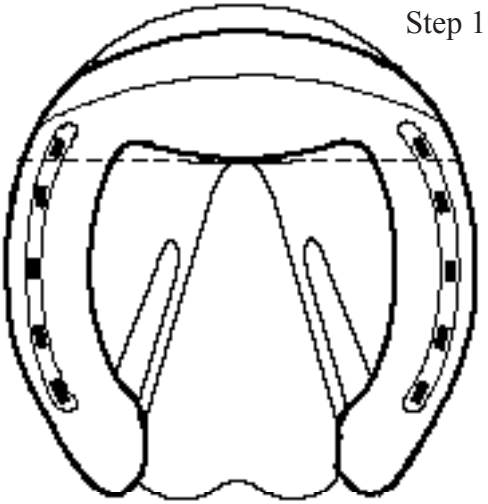


Figure 4.1

Step 1: Select the shoe that extends closest to the back of the frog when the inside border of the shoe (at the toe) is placed on the *Shoe Placement Line* drawn at the frog apex.

Note:

*You can bring the shoe together or widen it some to accomodate easy nailing. However, **do not** turn the heels in to conform to the heel of the foot.*

*These horseshoes have been patented by Gene Ovnicek in U.S. Patent No. 5,727,633 and by David M.Duckett in U.S. Patent Nos. 5,165,481 and 5,368,104.

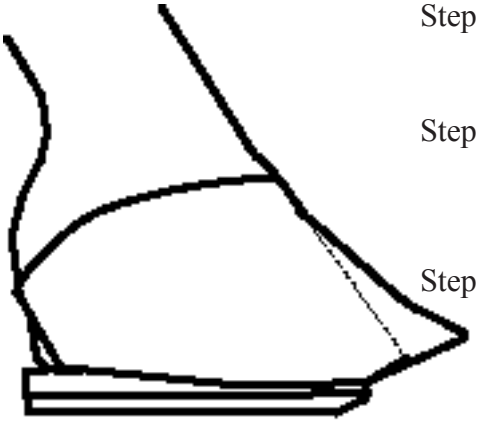


Figure 4.2

Step 2: Attach the EDSS Shoe to the EDSS Pad and trim the pad accordingly.

Step 3: Apply the shoe and pad to the foot using the line drawn at the frog apex for proper shoe placement.

Step 4: Finish the dorsal hoof wall to a strait plane from the hairline, and undercut the remaining toe that extends beyond the shoe and pad.

EDSS Adjustments

Frog Inserts

1: Severe pain in the sole surface of the foot may not tolerate excessive support with Frog Inserts. Slight heel elevation will be more helpful until the pain is reduced.

2: If moderate pain is present in the toe region of the foot over the sole, with little or no pain over the frog or heel region, then frog supports level with the Wedge Rails or shoe level will generally be beneficial.

3: Frog Inserts that extend beyond the Rail height or shoe level can be used in cases of Contracted Heels, or when little to no pain is recorded in the back half of the foot.

4: Toe Cracks and Quarter Cracks are treated most commonly with a metal plate, Impression Material and good hoof balance.

Wedge Rails

1: The primary objective is to have the horse land slightly heel first.

2: If taller rails are applied initially to attain a slight heel first landing, observe them closely and reduce the rail height as their condition improves.

3: Your final adjustments will result in a shoe with no Wedge Rails and a Frog Insert that is level with the ground surface of the shoes.

Abscesses

Horses unwilling to bare weight on one foot are generally involved in an abscess process. It's often helpful to apply a shoe with tall rails. No pad or Impression Material or anything that will apply pressure to the sole or frog should be used until the abscess has broke and is draining. When the horse resumes weight-bearing on the foot, you can prepare the foot, apply Impression Material and shoe the foot using the guide-lines we normally employ. Be sure to maintain the foot for some time with a little more than slight, heel landing. Gradually increase the frog support to the Wedge Rail height. Eventually you can reduce the rail height and leave the frog support to enhance blood flow and increase expansion. The adjustment time varies from one horse to the next, so use your own judgment, listen to the horse and don't get in a hurry.

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