

Dr. Redden's Instructions for Making Equine Foot Molds Using Advance Cushion Support (ACS)



The positive foot mold (left) and the negative foot mold (right).

The mold concept developed by Dr. Ric Redden offers clients, farriers and veterinarians a more efficient way to apply specific trimming and shoeing recommendations for a variety of foot problems, including club feet, severe lacerations, navicular disease, slow or no growth, laminitis, full thickness toe cracks, etc. Radiographs, photos and history are helpful when Dr. Redden helps others through consultations, but of course they do not provide the info of a personal exam. Using the positive mold of your horse's foot along with current radiographs and history brings him closer to the unique characteristics of your horse's foot.

The 3-D model that Dr. Redden will make from the negative rubber mold will provide your vet and farrier a realistic representation of small details concerning trim, shoe design, and precise location of shoe contact with the foot surface. Dr. Redden will trim the mold using current lateral and DP radiographs as his blueprint and apply a therapeutic shoe to the mold relative to the problem, chronicity of the case, demands of the mechanical model and goals of the client. The smallest details make the greatest difference. Dr. Redden's goals are to help your farrier and veterinarian tweak the mechanics of the shoeing protocol in an effort to offer optimum results. This unique protocol greatly diminishes problems that arise from language barriers, long-distance communication and differing levels of experience regarding Dr. Redden's concepts and techniques.

Before You Start

Read the instructions carefully and be sure you fully understand the process before making your molds. A video is available at <https://youtu.be/ILYsWJIN6BSM>



- Supplies needed:
 - Saran wrap or aluminum foil
 - Rolling pin or 12" section of PVC pipe
 - Flat, smooth surface
 - Vetwrap
 - Heat gun or hair dryer in cool weather

- One kit will make 1 mold of a 5" foot that includes the foot and pastern. This full size model is an exact replica of the entire foot and pastern, making it much easier to appreciate landmarks.
- One kit will also be adequate to make 2 short molds.
- **In addition to the mold:** Arrange for your vet to take low beam lateral and DP radiographs made with the shoe on (if your horse is shod) the same day the mold is made.



- **Before making the mold:** Make arrangements for your farrier to help you. Once the shoe is pulled, have your farrier clean up the rough surface of the frog and sole. **The foot should not be trimmed**, just clean it up so the mold can be easily removed.
- Your farrier should replace the shoes after making the molds, using the same nail holes when possible (no trim) to prevent the foot from breaking up as it would not resemble the mold once it is returned. The mold and radiographs will clearly represent the unique characteristics of your horse's foot, which is why it is important for them to be made on the same day.
- In hot weather, put the kit in the fridge to keep cool. The material sets very quickly in hot weather, which can force you to rush, especially the first time you make a mold. Keeping it cool can give you more time to work.

Making a Short Mold

- Your horse should be sedated if he is nervous or does not want to stand well.



- Mix half of the white putty and half of the gray by twisting and folding the two pieces together until all white streaks are gone.



- Place the material between two pieces of saran wrap or aluminum foil and roll it out flat to approximately ½” thick, using the rolling pin or PVC pipe.



- Remove the saran wrap/foil and lay the material on the foot. Smack it firmly to push the material into all crevices, sulci, etc. Make sure there is contact with the entire surface.



- Fold excess material over the edge of the hoof, being careful not to let it get too thin at the edge. Using your thumb, press the top border of the material, blending it to the wall surface.



- Once you are satisfied that the rubber has made contact with the entire hoof surface, cover it with Vetwrap, pulling it snug to push out any air pockets. Avoid pulling it too tight over the edge of the foot to prevent the sharp edge of the hoof from cutting through the mold.



- Using a flat surface (6x6 board or any stiff material), flatten the ground surface of the mold while it is still soft. This will prevent the sole from sagging when the positive is poured.
- **Hold the foot up until mold is firm.**



- In cool weather, prior to use, store the kit at room temperature and use a heat gun or hair dryer to speed up set time. The cooler the material, the longer it takes to cure. At room temperature, the material sets in 3-5 minutes. In hot weather it can set very quickly, so work fast or cool it in a refrigerator before use.
- Once the rubber feels firm, it is set. **Remove the Vetwrap and pull the flexible mold off only if you are making a Short Mold.** Proceed to instructions below for making a Full Mold of the Hoof and Pastern.

Making a Full Mold of the Hoof and Pastern

- If you elect to make the Full Mold, follow the steps for a Short Mold above.

- As you are applying first half of the kit to the bottom foot, have an assistant mix the remainder of the kit. Save a small amount from each jar to patch the mold upon completion.



- Once thoroughly mixed, shape the second portion like a large banana and place it between the layers of plastic. Roll it both ways making it as long and wide as needed to cover the remainder of the wall, coronet, heel bulbs and pastern with a little overlap, approximately 1/4" to 3/8" thick. For the average-sized foot, the template should be approximately 12 in (30 cm) long and 7 in (18 cm) across at the widest point.



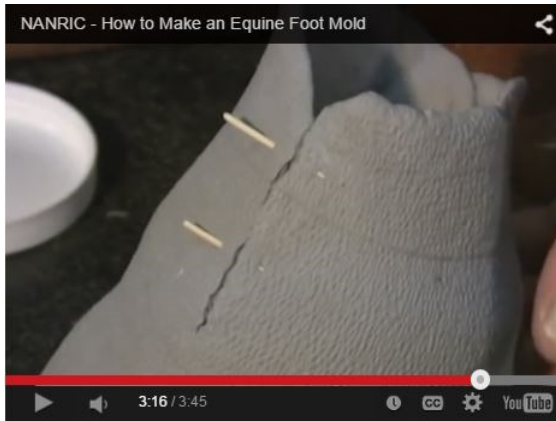
- While the foot is being held up, place the banana layer on the front of the foot and pastern and wrap it all the way around. Make sure it overlaps a little.
- Use your thumb to blend the two layers of material together. The smoother this transition, the less air gets trapped in the mold.



- Wrap Vetwrap firmly over the pastern and foot, working the soft rubber into the bulb of the heel, making good hoof/skin contact.
- If necessary, use a heat gun or hair dryer to speed up cure time.



- Once the rubber is firm, remove the Vetwrap. If you are making a Short Mold you should be able to slip it off the foot. For the Full Mold use a butter knife to split the mold along the front of the pastern to the ground surface and slowly work it off the foot. Once air gets under the rubber it will come off quite easily.



- Mix the remaining amount you saved from each kit and patch the split and any holes that may appear in the foot section of the mold. You can secure the edges of the cut with toothpicks, then seal the cut with the remaining mixed composite.



- Use a Sharpie marker to label the mold with the horse's name, date and foot identity.

Ship all negative foot molds via UPS or FedEx to:

R.F. Redden, DVM
 8235 McCowans Ferry Rd
 Versailles, KY 40383
 859-983-6690
 rfreddendvm@gmail.com

Please include your contact information, horse's name, shipping address and preferred method of shipping (UPS Ground, Next

Day, etc.). All mold kits will be returned UPS Ground unless otherwise specified.

When Dr. Redden sends the positive mold back to you it will be dated and labeled with your horse's name and whether it is a right or left foot. Dr. Redden will have trimmed the model and fitted a therapeutic shoe to it with detailed instructions. This positive mold will not only help your farrier with the trim and shoe placement but also can become a future reference model. It can serve as a reference for farriers who may be called to shoe your top horse when you are traveling the show circuit. Having a detailed model that describes the external characteristic requirements for a specific foot on shoeing day can be a tremendous asset for all concerned. Reference models should be updated as indicated. This finely tuned tracking system can save careers as well as lives.