

Casting

Competent barefoot trimming and attention to lifestyle and diet are still the most important aspects of hoof care. A multitude of problems can be taken care of that way. In many cases that takes time. Meanwhile the horse may be outright sore or tender footed and may need a little more help than we can provide just with trimming. Some of the tender footedness can be taken care of with boots. Boots also come in very handy when the horse is ridden on hard terrain he is not used to.

But then there are the situations where the horse needs temporarily a better solution. This is where hoof casting comes into play.

Equicasts (www.equicast.us 910-281-5658) were developed specifically for the use on horse's hooves. The casting material is not the same as a typical fiberglass cast. Instead it uses a unique poly-cloth and resin combination that is far more durable, abrasion resistant and more flexible than a typical cast. The idea is simple on the surface: You use the quick-drying material to build a semi-permanent, 'below the hairline' custom hoof boot. In general the cast combines the protection and laminae-relieving solar support of the padded hoof boot while it simultaneously "holds the foot together". In this regard it does a better job than a horseshoe. Add vertical flexion, heel expansion, pressure and release (rather than dangerous static pressure), plus little or no maintenance from the horse owner; this is a very good tool. But please remember: It always has to be a temporary tool. It should not be used without careful evaluation and for sure should not be used so a horse can be "used" again before he is fully healed.

Application

There is a learning curve to using the casts, but a little practice (the perfect kind) goes a long way.

There are two ways to apply a cast:

1) Trim and thoroughly clean the foot



2) Open the package and remove the roll of casting material

3) Apply a bead of Vettec Adhere or Sole Guard to the hoof wall (about one inch above the ground or halfway between the ground and the coronet band)

4) Place the roll in a bucket of water (for about 10 seconds)

5) Wrap the cast. In order to practice wrapping the cast, we suggest you use some

Vetwrap before you use casting material. Vetwrap is cheaper and you can practice with it until you are really comfortable with the application.

6) Place the wrapped foot onto a foam pad (to mold it to the bottom of the foot) and pick up the opposite foot to expand the hoof capsule. Or put the



hoof just on the wrapper of the cast. This gives the bottom a smooth surface and prevents the foot from getting stuck to the ground (or the ground from getting stuck to the cast)

7) You may want to move the horse immediately before full curing to further increase hoof and cast expansion. The cast will be dry in about two minutes. This varies with temperature and humidity. Cold water can be beneficial to slow down the curing time in hot weather; hot water speeds curing time in cold weather.

8) Trim away any material that is touching the coronary band and/or heel bulbs. Alternatively,



you can put some painters tape around the coronary band before casting. That prevents the cast getting onto the coronary band or it is easier trimmed away later.

Or



1) Trim and thoroughly clean the foot

2) Sand or rasp the wall to make it more adhesive for the cast

3) Open the package and remove the roll of casting material

5) Wrap the cast. (Practice like discussed above)

6) Apply water to the finished cast. This slows curing time. You can use this to add additional hoof/cast expansion by walking the horse. This method also provides better glue adhesion, so it is the method of choice for upright feet with no wall flaring.

7) Place the wrapped foot onto a foam pad (to mold it to the bottom of the foot) and pick up the opposite foot to expand the hoof capsule.

8) You may want to immediately move the horse before full curing to further increase hoof and cast expansion.

9) Trim away any material that is touching the coronary band and/or heel bulbs





Applying casting material



Wetting the casting material



Applying a pad to set the cast



Trimming the cast off the bulbs



Removing the cast

Some Questions

Question: I am concerned that the casts might reduce hoof flexion, restrict blood flow and lead to heel contraction and/or slow healing.

Answer: The most important reducer of hoof flexion and circulation is lameness; a lack of movement or worse: Compensative movement. No doubt the presence of the cast robs some of the flexion of the hoof capsule, but the casts tend to make compromised horses so comfortable, the increase in correct movement seems to create an excellent "circulatory trade-off". In the real world the foot is healthier overall when you remove a cast. Well connected wall growth and healthy laminae will have been produced and the sole will be thicker.



Remember, this is only a temporary solution. We usually pull the cast after two weeks, evaluate the situation and then may put on a second cast or not. With everyday wear the cast does become more flexible as well. The fact that the cast does reduce hoof flexion to an extent can actually work in your favor. It is very common for domestic horses to have under-developed digital cushions and lateral cartilages. The weakness and instability causes them to incorrectly impact on their toes. They can move this way for a lifetime and never develop the back of the foot. The stability of the cast often breaks this pattern and allows the horse to comfortably impact heel first; starting the process of developing the back of the foot.

Question: I was concerned that the cast might excessively weaken/soften the foot and lead to problems with fungal infection in the frogs and white lines.

Answer: The cast breathes. When used for 3-4 week intervals in wet, muddy turnout conditions they provided no significant problems with fungal infection or excess moisture. There is no form of hoof protection that is healthier than barefootedness IF the current health and conditions allow it. If not, the casts are a very useful tool with minimal negative effects. When you first remove a hoof cast, the sole and frog will be soft and unconditioned, but typically undamaged. There may be an initial re-conditioning phase, but remember, this was not a healthy hoof.





Question: I was concerned that they might be over-used; becoming another style of permanent horseshoeing that ultimately degrades the health and quality of the foot. "Use it or lose it" is nature's law.

Answer: You have a valid point. But so far we have not used them for more than two cycles back to back and have seen nothing but excellent results. They have to remain a transitional tool; a temporary measure to get the horse past a bad situation.

The manufacturer (Equicast) recommends an open-soled wrapping method. The cast covers the lower half of the hoof wall and laps over the white line and then covers about 3/4 inch of the outer perimeter of sole (2 inch casts will work on most 'non-draft' horses). With this method, most of the sole and half of the frog are exposed. This method works very well when there is adequate sole thickness, and the primary concern is lamellar integrity or caudal foot pain.

When soles are thin or when subsolar abscessing is present, you may want to use a wide (4 inch) cast to create a boot that completely covers the bottom of the foot. The cast alone is sometimes adequate for these horses, but you also can add some type of pad to the bottom of the foot. When you use this method, be sure to load the foot onto a firm pad or pile of sand to compress cast wrinkles on the bottom of the foot. Then after the cast cures, use a sharp hoof knife (as if paring a sole) to further remove any bumps in the material that could cause dangerous pressure points.

You also can use Easycare Comfort Pads and Dome Pads (www.easycareinc.com) in the casts. The easiest way to do this is to first glue the pad to the foot with [Vettec Sole Guard](#) or [Adhere](#). While the glue dries, let the pad fully compress (by holding up the opposite foot), then

wrap the cast as usual.

Or you can create a custom pad with [Equethane CS Sole Pack](#). The result is a much cleaner environment between the foot and the pad. For this method you will need access to the bottom of the foot for about two minutes (as opposed to a few seconds for a foam pad), so this is important for deciding which to do in a given situation. Detailed instructions are available from Vettec, but the basics: To form the CS pad, thoroughly clean and dry the foot, and then apply the CS to the bottom of the foot, filling in the solar concavity, collateral groves and frog sulcus. Once the product is applied through the mixing tip, it will set up in a minute or two (depending on temperature and humidity). During this time, place a piece of wax paper over the pad so you can use your fingertips to smooth, shape and control it as it dries. If the back of the foot is deep or contracted, a temporary duct tape "dam" at heel level (around the bulbs) is very useful. Once the product partially sets up, you can leave the wax paper in place and place the foot on flat ground to let the horse rest. When the CS hardens to a rubbery consistency, remove the wax paper and wrap the cast as usual.

Another trick is to do anti-fungal/anti-bacterial soaks through the cast. This is especially helpful with P3/sole penetrations, subsolar abscesses, thrush and white line disease. You can use 1 hour soaks (with a soaking boot) with a 50% water/apple cider vinegar solution. You also can use White Lightening and Clean Trax with no harm done to the casts. Just be sure the soaking

solution doesn't harm live tissue. This is particularly important because the cast may hold the solution next to the foot longer than you

think.

These methods and more can be combined to maximize comfort and healing dynamics for the toughest of cases.

Cast Wear

In soft pasture terrain, the casts typically last 3-4 weeks (depending on the amount of and balance of the horse's movement), though I personally consider 3 weeks to be my maximum. Typically they wear through in small spots at the toe and heels in about a week, but then stay the same for a few weeks after that. Hard packed or rocky paddocks can wear them out within a week. In this type of terrain, you can use Vettec Equethane Superfast to reinforce the outer perimeter of the foot after the cast dries (but before the horse steps into dirt). This adds considerable life to the package.

Careful! An improperly applied cast could cause serious problems. A cast left on too long could wear through at ground level and slide up the leg, damaging the coronet. A cast wrapped too tight could rob circulation.

How to start

In the beginning apply several several extra casts your own horses. It is best that you are not learning to wrap while also struggling to access a lame horse, and frankly it is also best that the vet and horse owner are not looking over your shoulder while you botch a few casts.

The final word is not quite out, but it seems we have found a cheaper casting material. Best of all, they ship world

wide:http://orthotape.com/ALTOCAST_Fiberglass_Casting_Tape.asp?Format=

Just click on the link. When ordering in the US, these casts are at this time unedr \$5.00 a piece including shipping (Sept.2011)

This article was written with the help of Pete Ramey. Pete ramey's DVD set "[Tools of the Trade](#)" is an excellent guide for casting.

