Since they were only prototypes in 2008, the Easyboot Gloves and Glove Glue-On Shells from [Easycare, Inc.](http://www.easycareinc.com) have been my primary tools for hoof protection. There are many great boots and gluing options out there and I have tried a majority of them but these have remained my favorites.

**Easyboot Gloves**

These boots are light, compact and durable; but the reason I am so fond of them is that I can modify them in so many ways to suit individual hooves. This is particularly important with flared or rotated hoof capsules or hooves with long toe/under-run heel syndrome. The toe of the boot can be heat-fitted to expand, allowing the breakover to be placed correctly – critical to correct movement and thus rehabilitation of these hooves.

Heat-fitting is useful for more routine fitting on “normal” hooves, as well. The Glove is so light, durable and compact partially because it does not rely on buckles, straps and overlapping layers of materials to keep it on. Instead, it relies on perfect fit. If the boot is touching the foot everywhere, with no excessively tight areas and no areas with air space between the foot and the boot, it will perform like no other. But – and this is a big but – if the boot is tight in some areas and has air space in others, it may be one of the least reliable boots on the market. Fit is everything with this model, and if the foot is changing, the boot will have to change along the way as well.
That means that this boot is not for everyone and not for every hoof; however a well-fit Glove is the highest-performance option, so each owner must decide whether to go this route. I suppose this is similar to a racing engine that must be pulled apart and rebuilt after every race. Is this a good engine? It depends on your perspective.

This is an easy choice for horse owners who are lucky enough to have a hoof professional who does all this modification for them. But for horse owners “on their own,” the Easyboot Glove may not be the best boot choice.

**Heat-Fitting**

I use the [Digital Heat Gun from Ace Hardware](https://www.acehardware.com) that reaches 1100°F (Fahrenheit) although any other brand will work, as long as it reaches this temp. Place the boot (or shell) on the foot and then palpate the boot walls. You will usually find that some areas of the boot are tight against the foot, and some are loose – you can press the boot wall inward to close the air space inside. Mark any areas that are tight with a Sharpie. *When heat fitting, you will generally be moving the foot forward into tight areas until the loose areas become tight.*

As you close these loose areas, you will simultaneously be optimizing breakover and placing the heels in the perfect spot to be snug (but not overly tight) and sitting all the way down on the boot floor (not standing on the heel portion of the shell or the gaiter).
Remove the boot from the horse for the heating process, and be careful to direct the heat away from
the gaiters (and your hands). Only the lower shell is heated. You need to heat the boot gradually, so it
heats all the way through. The timing varies daily with the power source, heat gun, ambient
temperature, and the temperature the boots endured in the back of your truck the previous night. So
each time I heat boots, I must determine a new timing. I do this by seeing how long it takes the area I’m
heating to develop a sheen.

On the outside of the boot, hold the heat gun parallel to, and ¾” away from the surface, moving the
heat gun in small rapid circles to distribute heat. As soon as you see a slight sheen appear on the
surface, move the heat quickly to another area. Keep the heat focused only on the tight areas you
previously marked, trying to avoid heating areas that were already loose on the hoof wall. Once you
have brought a slight sheen to the desired areas on the outside walls of the boot, switch to the inside of
the boot. You will not be able to focus heat as accurately or see the sheen on the inside, but instead,
apply heat for the same amount of time as you did on the outside. Repeat one more time inside and out
for the same amount of time as it took to develop the sheen in the first lap.

Caution: In used boots, you will not see the sheen develop. Ground-in dirt hides the sheen until the
boot is over-heated. Learn today’s timing on a new boot before trying to heat up a used one.

If, at any point in the heating process, you see tiny bubbles emerge on the surface, move on from that
spot and don’t return – that area is slightly over-heated (but may still need more heat from the inside of
the boot).

After this process is complete, move quickly to the horse and put the boot on. You may need a rubber
mallet to drive the boot back far enough. When the heels are in the perfect spot in the boot, put the
foot down, let the boot cool for two minutes, and evaluate your fit.

Evaluating Boot Fit

The key to Easyboot Glove success is at the heels. If the heels are too tight, the boot will be constantly
trying to “squirt off” the foot (plus heel rubbing is likely, as is gaiter failure). If a mallet is required to put
the boot on, the heels are probably too tight. The boot should slide on readily in hand.

If the heels are too loose, the foot can twist in the boot. If it can twist with hand pressure, it will twist
when you ride. So to combine these two extremes, the perfectly fitted Glove will slide right into place
with firm hand pressure (minimal percussion), but then “suck” into place with no turning of the boot on
the foot.

Secondary to heel fit is the percentage of boot wall touching the foot. Ideally, the boot will be touching
the hoof wall everywhere with no air spaces. But this perfection is sometimes impossible to achieve –
particularly with wide feet or feet with large quarter flares. The boot can perform well with about 30%
airspace, but always strive for “the best you can get.” At this point, I often reheat small, tight areas to
close more air spaces, particularly at quarter flares.
**Hind Feet**

I fit hind feet the same way, but it usually looks very different. Hind feet tend to be more pointed than the rounder front feet. The Gloves (and all other hoof boots) were designed to fit the front feet. This is why hind boot fit issues are so common, and this is where the Gloves can really shine. I generally pick a hind boot size by its width. This usually means the foot is way too long for the selected size. I then heat the center of the boot toe, allowing the horse’s more pointed hind toe to hang over the front of the boot, much like a laminitis case. This, of course, locks the foot in place within the boot, preventing the twisting so common with hind boots.

**Boot sizing**

Sometimes, by the time you get the toe area fitted, the heels have become too loose. This boot will not function well because the heel fit is the most important aspect. You simply need to go down a size (or two) and start over. This is not a big deal for professionals, who can simply sell the other boot to someone else who needs that size, but can be really bad news to a horse owner who has one horse and one set of Gloves. With experience, you can learn to prevent this (usually) by simply thinking things through before you heat. If, during the initial assessment, I see that I have significant changes that need to occur at the toe, but my heels already fit nicely, I automatically know I need to start with a smaller size.

It usually works well to size the boot for the width the foot would be if there were no quarter flares, and then heat-fit to accommodate toe length and any wall flares. At best, with distorted feet, this will take some experimentation, so it is always best to have several different sizes around to simply try on.

**One Foot, One Boot**

Like your own shoes, horse boots adapt to the foot with use. For best results and performance, designate one boot to one foot (I “earmark” them with nippers and/or a hole punch, as writing on them doesn’t last). While this will help with the performance of any boot model, it is particularly critical with the Gloves. If you need to share boots between horses, I recommend you choose a different model – one with buckles, straps and overlapping layers of materials.

**Other Glove Modifications**

**Insoles**

The most common modification I make is the addition of padded insoles to the boots. This puts the sole, bars and frog to work, thus relieving strain on the laminae and provides a cushier ride to the solar corium. A weakness of the Gloves (vs. some other models) is that they generally won’t accommodate pads thicker than 3/8-inch. When I need thicker padding for extreme rehab cases, I use a different model.

But for most horses, 1/4”-3/8” pads are all we need, and these work well in the Gloves. A wide array of pad choices are available – your imagination is the limit – but the best pad is the one that makes the horse feel the best and move more correctly. Particularly with lameness cases of any kind, it is wise to experiment with multiple pad choices and pick the one that yields the best movement of the horse.
I am a big fan of the Easycare Comfort Pads (as I should be, since I originally picked out the materials). They come in two thicknesses and three densities that cover most needs. It can be a big money-saver, though, to find large quantities of raw foam/rubber from other sources. Horses with thin or otherwise painful soles tend to choose this type of padding over other options.

Another favorite of mine is synthetic felt in 1/4” or 3/8” thickness (thanks Sossity and Mario). Horses with caudal foot pain tend to prefer these. They are also better for moisture management, so I really like them for boot turnout and in glue-on shells. Sourcing the material has been a bit of a problem. It is readily available online but seems extraordinarily expensive. So far, I have continually found new saddle pads and liners at clearance sales for my own use, and I am always sticking my nose into clients’ tack rooms looking for a deal on an unwanted felt saddle pad. I have also found the thick (1”-1 ½”) felt pads can be easily cut/torn into thinner pads, as the material is put together in layers.

Some horses show no preference between the foam/rubber pads and synthetic wool felt. For these, I tend to use the felt, as it is cheaper, more durable (always a good combination), and may manage moisture better.

Thick leather is another durable pad choice. Go to a leather shop and buy tanned, full thickness cowhide. These pads offer less shock absorption so may not be the best choice for most thin-soled horses. But for sound horses that you simply want to provide more load distribution, leather is a great choice. I also prefer leather when I need to unload an area of the sole by cutting a relief hole in the insole. This comes up with surgery sites on the bottom of the foot, and with “sole penetrations” or other exposures of the solar corium.

Regardless of the material selected, you will need to cut it to shape. With Easyboot Gloves, I place the boot on the pad material with ½” of boot heel tread hanging off the edge of the pad. Then, using a Sharpie, I trace the boot outline onto the pad. I cut the pad with large shears or a razor knife, following the inside of my mark, leaving the mark and 1/8” of extra material on the unused portion of the pad. The desired end result is a pad that fits the inside of the boot well, with no wiggle room, and no lapping up onto the sides in any area.

**Power Straps**

These are stretchy rubber additions to the top of the Glove boot, available as add-ons from Easycare. They are very handy for eliminating boot fit/performance issues, but they do make boot application more difficult for the average horse owner. When I first started using the Gloves, I knew nothing about heat fitting them and found I needed Power Straps on about 20% of front feet and 80% of hind feet. As I got better at heat-fitting, I use about two sets per year.

Their best use may be for economy. When you fit Gloves to a flared or rotated foot and then succeed in growing in better-connected walls, the foot size is generally smaller. This means the boot fit will have become loose and sloppy. The correct thing to do at this point is fit a new set in a smaller size but adding the **Power Straps** can be a cheap alternative that extends the life of the old boot.
Power Straps come with cut and punch marks labeled for each boot size. I have found that, rather than using these marks literally, I do better thinking my way through it and punching the holes where I think they need to be for the individual fitting needs.

**Add-On Buckles**

As an extension of the Power Strap idea, you can add buckles to the boots to gain even more adjustment. The buckles in the picture below are replacement buckles for O’Neal motorcycle boots I ordered from Amazon. Of course this eliminates some of the compact nature I love about the Gloves, but the result is still more compact than most types of boots.

![Replacement buckles for O’Neal motorcycle boots I ordered from Amazon (part #0290-095 and #0290-091) added to the Power Strap attachment points. Apply buckles so that they are on the lateral sides of the boots to avoid interference.](image)

**Drainage Holes**

In other models of boots, I usually drill drainage holes in the sole to quickly drain the boots after creek crossings. Due to the close fit of Gloves, particularly if insoles are being used, I find there is no need to do this – there is not really any room for sloshing water in the well-fitted Glove. But opinions (and fitting) vary, so if you feel the need to drill drain holes in your boots, there are certainly no problems with it. I generally like to use a ½” drill bit and place multiple holes in the tread over any open areas inside the boot. This hole size seems to be a good compromise – large enough to resist clogging and small enough to minimize the entry of pebbles.
Trim Cycle

By nature, Easyboot Gloves are probably more sensitive to a tight trim cycle than other models. This works to some horses’ advantage because boots have been used by many owners as a tool to allow neglect.

The boots should be fitted to a freshly trimmed foot. There is generally enough stretch in the Glove shells to accommodate a six-week trim cycle if there is minimal wall flaring on the hoof. But for horses with significant wall flares, the foot gets much larger in circumference during the trim cycle. By six weeks, you usually will not be able to get the Glove on. These horses will need a shorter trim cycle until most of the flaring is successfully grown out – but again, this is a good idea, anyway. It is worth noting, though, that the bulkier types of boots with buckles and overlapping layers of materials will be more accommodating to long trim cycles on flared hooves. The Gloves aren’t for everyone.

Modifications to Tread

Breakover Adjustment

The stock bevel built into the toe of the Glove is generally just right for horses with perfect wall attachment at the toe except that since horses need to turn, I feel that same shape should continue from a 10:00 to 2:00 position around the toe. This modification, I do to almost every pair I fit. I use a brand new Heller Legend hoof rasp that has never trimmed a foot for this (and most other modifications to the boot soles). Many types of sanders and grinders work well, too – your choice.

In horses with separation of the toe wall from the coffin bone, I generally accommodate most of the needed breakover adjustment with heat-fitting of the boot’s toe, but an additional inch of breakover change can be trimmed into the boot sole as well. This is handy for joint, muscular and other problems with locomotion as well.

Heel Rockering

There are countless reasons (I won’t go into here) that rockering of the heels can create an advantage for the horse – club feet, forging issues, chronic toe-walkers, joint problems, caudal foot pain, hoof capsule rotation to name a few. I often do this, both to bare feet and to any appliance I add to the foot, including hoof boots. The Gloves accommodate this very well.

Wedging

Occasionally, there is a therapeutic need for mediolateral or dorsopalmar wedging of the foot. If no more than 3/8” of deviation is needed, I prefer to simply remove the unwanted material from the boot tread. If more were needed (rare), farrier wedge pads (up to 3/8”-thick) can work in the Gloves.
Traction Modifications

Two types of add-on studs are available from Easycare – a large nut/bolt type stud and smaller ice screws. I have also experimented with using a larger hole saw to drill out and open the bottom of the boot, leaving a narrow rim of shoe at ground level and an exposed sole. This gets great traction in muddy and most arena conditions but may have the same disadvantages of a thick metal shoe; clogging and carrying too much weight of dirt, which could limit performance and hasten fatigue.

A better modification for deep or muddy footing is to use an electric router and guide to thin the boot tread to ½” wide. Next, heat up the remaining boot sole and push it up into a dome shape (I press the boot sole onto one of my daughter’s softballs to achieve this shape. The prototype traction sole shown below was simply a computer duplication of a Glove shell I modified in this fashion.

The idea (much like a bare foot) is that the tread will clean out with every stride (spray with WD-40 or Pam for better results). I believe that these get better traction on mud, wet grass, arena surfaces, tracks, etc. than cleat-type treads or a metal perimeter shoe because of this resistance to clogging. An additional advantage from a performance standpoint is not carrying the added weight of the dirt/mud.

At 2:00, the typical rounding of the breakover I do to most Gloves and Glue-Ons. Additional breakover adjustment can be added – I often rasp it back to the second traction groove at the toe, taking care not to rasp up to the tiny seam between the boot tread and sidewall.

At 7:00, I have added a typical heel rocker I like for chronic toe walkers, hoof capsule rotations, and some club feet. This shape and size can vary as needed. Center, is a common vent (discussed below) I do, only on Glue-Ons – not Gloves. This is a size #1.5 and the hole was made with a 2 ¼” hole saw, arbor and drill.
Traction modification for deep footing. Be sure to leave an adequate “shelf” for the toe to stand on. Because of the increased likelihood of gripping the ground too well or snagging on something, use this with Glue-On applications or with Mueller Tape added to a Glove as discussed on pages 16-19. Also, of course, consider the safety of the horse – this is suitable for loose arenas or tracks but not trail work.

Prototype Glove traction sole. You can build one from a standard Glove (except that the outer rim of tread will be slightly more shallow) using a router with a guide and square bit, a heat gun, and a softball.

This boot will, of course, wear out faster on hard terrain but as with human athletic cleats vs. track shoes, I don’t think it will ever be possible to optimize turf traction with the same tread pattern that is perfect for road work. For top-level performance, you will need to own both.
**Boot Turnout Done Right**

The Gloves are designed and intended for riding and other work, with the assumption that the boots will be removed when the horse is turned out. In spite of that fact, after trying countless other products, I have found Gloves are my favorite turnout option for horses that are temporarily lame in their own turnout environment. Boot turnout is no picnic for the horse owner – there is work involved – but, in my experience, padded boots tend to provide more pain relief and quicker healing than any other shoeing option. If increased movement and a lack of compensative movement are achieved while simultaneously “doing no harm,” the result is healthier growth of every part of the foot. So boot turnout tends to be the quickest path to feet that are healthy enough to be comfortable barefoot in their own turnout environment.

This is most critical with laminitis cases. Only in a padded boot (or sometimes bare on the most perfect terrain) can you hope to get away with unloading the walls (and thus the laminae), carrying the load on the sole while healthy laminae are re-grown. This is because only boots offer a full release of pressure to the sole (thus the solar corium) when the hoof is in flight.

The primary reason I like the Gloves best for turnout is that with heat-fitting, I can adjust breakover to the correct area on horses with flared or rotated walls – a key feature of most horses who are unsound at turnout. For caudal foot pain cases, assorted pads can be tried in the boots to achieve flat or heel-first impacts – the key secret to success with these cases. The Glove tread readily accepts modification, as discussed above, often critical to rehab cases. In my experience, a well-fitted Glove is less likely to cause rubbing of the bulbs or hide than any other boot I've used. All this and more can be done in a lightweight, very compact package, which also very important to me.

Turnout is hard on boots. Constant exposure to UV rays break down the nylon and plastics. Generally the same boot that might last an endurance rider 450 miles (or the average trail rider five years) will be destroyed by 2-3 months of turnout. The Gloves are no different except the only part that gets destroyed is the gaiter. Replacing the gaiter is much cheaper than buying a whole boot.

Note: Gaiter life is greatly extended by wrapping the gaiter with Vet Wrap (or other tape) when using the Gloves as turnout boots. It blocks UV rays, and helps prevent horses from nibbling on the Velcro closures.

The Gloves do also have weaknesses as turnout boots, compared to other models. Some cases will need thicker padding than the Glove can accommodate. I use up to ½”-thick pads in Gloves on lame (lower performance) horses, and it works pretty well. But if you need thicker padding, you will need to select a different boot model.

Another issue already discussed is that with the Gloves, you are more likely to need 2-3 boot sizes as you grow out a 20+ degree rotation than if you were using a boot with buckles and layers of overlapping material. But since you generally can’t get breakover right on a rotated foot with those other types of boots, I feel you are much more likely to grow out a rotation if you use heat-fitted Gloves. The extra money is well-spent.

Regardless of the boot you choose for turnout, the primary problem is the rotten “funk” that quickly builds up inside the boot. This can complicate infections in the white line and frog. It can also get in the way of growing a healthy sole, which is one of the key features of a horse that can be sound for barefoot
turnout. To eliminate these problems, the boot must be removed and washed daily. During this time, clean the horse’s feet and place him in a dry area suitable for whatever problem he has (deep shavings, a deep bed of pea rock, etc.).

During this time, inspect the bulbs and legs for rubbing. If this occurs, it is probably because the boot is too tight at the heels (jamming), or too loose (twisting/movement is occurring). Re-fit your boots and/or bandage or use a man’s tube sock on the horse prior to booting.

After – ideally – two hours of drying time, powder the inside of the boot with Gold Bond Medicated Foot Powder (available from most pharmacies) and replace the boots. Re-wrap the gaiters with Vet Wrap (or other tape).

Yep, this is a lot of work for the horse owner. But for many problems, particularly laminitis and caudal foot pain/navicular syndrome it works better and is way-cheaper than any shoeing option I know of. I expect/demand horse owners with a horse with the above problems to give me 2-3 months of good boot turnout. During this time, my goal is comfortable, non-compensative barefoot turnout. If I cannot achieve this, I let the horse owner off the hook and seek other options.

Some problems are permanent. Others may take years to fix. This is when I reach for glue-on shoes. The healing rate is slower, compared to booting, but the daily maintenance by the owner is more reasonable for the “long haul.”

Glove Glue-On Shells

The Industry’s Shift to Synthetic Horseshoes

In my opinion, the increasing popularity of synthetic shoes – both for rehab and for high performance – is a very good step in the right direction. During the time that metal was the only material we had that would hold up under a horse, metal made a lot of sense as a horseshoe material. But these days we have a wide array of materials that will do the job, and most of them are much better for energy dissipation and shock absorption. These materials are also more flexible, which can allow the foot to function more normally, probably leading to increased health of internal structures and increased protection from internal and external injury.

I do worry that synthetic shoes will become just another thing that people leave on horses’ feet 365 days a year. Healthier than steel, perhaps, but still degrading the foot with their constant presence. I use these tools in my everyday work, but for most situations I remain a “barefoot and boot man,” as I think this combination yields the best hoof health in a majority of situations.
My Love Affair with the Glove Shells

There are times, though, that long-term or even permanent hoof protection is needed. For these horses, I usually turn to the Glove Glue-On Shells (simply a Glove without the gaiter) instead of other synthetic shoe models for several very specific reasons:

- All of the glue bond is on the side wall, instead of on the bottom of the wall. This frees me up to unload areas of separated walls, making these shoes ideal for growing out hoof capsule rotation, toe flaring, and quarter flares (and thus wall cracks).
- There is no need to trim the foot “flat” in preparation for shoeing. The horse’s foot, when viewed from the side, is naturally arch-shaped, mirroring its internal structures. The only ways to level this arch for shoe prep are to, 1) thin the sole at the toe, 2) thin the sole at the heels, 3) leave the quarter walls too long, or some combination of those three. I can’t abide any of those, as each causes damage. Note: When floating the quarters above the shoe floor, be careful not to let glue run beneath the wall and harden under the sole.
- **Almost** as well as a hoof boot, if applied properly, they can allow total release of pressure to the sole during hoof flight. This allows you to get away with more sole pressure/support than any other fixed shoeing method I have seen, heard of, or tried.
- The glue bond area is 3-5 times larger than typical glue-on shoes. There is also no need to prep (or protect the prep of) the ground surface of the foot. For beginners, this makes it easier to succeed with them. For seasoned veterans, this makes the bond as close to bombproof as a shoe can get.
- **I can pad in them!** Most permanent shoe modifications accommodate padding or impression material under the arch of the sole, but not under the wall or the outer periphery of sole. This little trick is a true life-saver for thin-soled, splat-footed horses.
- Using heat-fitting, this shoe can easily adapt to any almost any hoof shape, and be adapted to any breakover or heel support needs.
- Economics. I can stock only this shell and, by trimming it down to shape, duplicate a wide array of products. If I want an Easyshoe, a Flip-Flop, Love Child, a lower cuff, a direct glue shoe with no cuff, M/L or D/P wedge, better traction, heels in, heels out, open sole, closed sole, frog support... I can make one by removing unwanted material from this single product. This helps maximize precious storage space in my truck and, of course, dramatically cuts the expense of carrying so many products.

Heat-Fitting

It is equally important to achieve a proper fit with the Glue-Ons as it is with the Gloves. We have the same breakover and heel support needs. Large gaps between the wall and shoe will be difficult to fill with glue, and tight areas may push the shoe out of place before (or after) the glue dries.

Better fit can be achieved with the Glue-Ons than the Gloves when large quarter flares are present since the gaiter is not in the way of quarter fitting. During the heating process, you will find that it is better to hold the shell with something besides your hand, particularly if you have opened the sole (discussed below). I use my shoe pull-offs or crease nail pullers.

As an end result, you want a snug but relaxed fit with little-to-no air space, and no pressure attempting to push the shoe out of place. Prior to gluing, you should be able to put it on the foot with no glue, walk the horse around on concrete, and it should stay in place.
Other Modifications

All of the modifications I discussed on the previous pages with the Glove boots can also be done to the Glue-On Shells. Below are additional options I use only when gluing.

Venting the Back of the Shoe

Gluing allows you to cut out the heel section of the boot completely. I almost always do this as it allows the foot to breathe, keeping the back half of the foot relatively free of the black, foul funk. I tend to do this simply with my pocket knife, and then I finish by rounding the top of the cuff with my nippers or shears.

![Opened heel of Glove shell, done with knife and nippers with stock shell in background. I’m doing this to 90-something % of my glue-on shells.](image)

Venting the Bottom of the Shoe

If there is adequate sole and frog in the center of the foot and if I don’t perceive a need to use impression material or padding, I often vent the bottom of the shoe (as shown in the photo on page 8). Using a jigsaw or Dremel, you can follow the contour of the shoe tread, mimicking the frog support and look of an Easyshoe. The material is strong and difficult to cut. Most tools actually burn their way through it, rather than cutting, and it can be a long process.

So in most cases, I simply use a drill and hole saw (thank you Leslie Carrig!), usually 2 ¼” diameter, occasionally larger, to vent the bottom of the foot. This takes seconds to do, with no burning or clogging, though the end result may not look as cool as other designs, the horses never notice. As with almost any open-bottom shoe, there is some risk of a stone lodging between the shoe and the sole, causing problems. But the access to air can be worth the risk, particularly if the owner routinely picks and checks the area.
Pads and Impression Material

All of the padding methods discussed for the Glove boots will work with the Glue-On version, plus several additional options -- Dental Impression Material (DIM), pour-in pads, and Sikaflex 227 adhesive, to name a few. Generally, when using any type of pad, I leave the shoe’s stock sole intact (forgoing the sole vent). I also fill the frog’s central sulcus, the collateral sulci and cover the sole with a thin layer of Artimud to keep infection at bay.

Prep and Glue

Gluing instruction is best done in person or at least via DVDs or YouTube (start here) – not in writing – but here is my basic protocol in a nutshell, and in a very specific order:

1. Trim the feet, clean out any infected areas in the white line or frogs, wire brush debris from the walls and bottom of the foot. This, and the other steps are each done to all four (or two) feet that are being glued in sequence, rather than doing each foot start-to-finish. This saves time.

2. Heat-fit and do all shoe modifications. If using DIM or a felt pad, it is prepared at this point. If using a pour-in pad, decide if you need a hole or holes in the shoe to inject the pad.

3. Sand all the gluing surface of the sidewall, yielding a rough finish. I cut 50 grit belt sander belts into small squares and do it by hand, or more recently, use a cordless drill buffer/sander. I then use the rough corner of my rasp to add fine grooves to the gluing surface. Take care to prep all the way to the back of the heels. This area can be hard to reach, easy to forget, and is the most critical area of glue bond.

4. With a small hand-held butane torch, and keeping the visible flame out of contact, I heat the outer wall for 1 or 2 seconds in each individual spot, moving the torch around very quickly while avoiding melting the hair at the coronet. Most of this, I do with the foot on the ground, but be sure to pick up the foot and prep the heels. I do the same to the inside of the shoe’s gluing area. This step eliminates dust, oils, and moisture, and is critical to success. After this step, take great care not to re-contaminate the glue surfaces of the hoof and shoe. Arm sweat, oils from impression materials and fungal/bacterial treatments are the most common culprits, as well as the grubby little hands of curious onlookers and well-meaning horse owners with a bottle of fly spray in hand (yep, it happened to me).

5. Using a painter’s digital moisture meter, verify that all parts of the hoof’s gluing surface read 0.0% moisture. If not, repeat step #4. If a horse just came in from dry stall shavings or a dry pasture, one lap with the torch will usually do the trick. If the horse just came in from the rain, it
may require three or more laps. Resist the temptation to heat longer as this could harm the horse. Instead, heat more times. Be patient – this is the most important step, particularly if you live in a damp climate.

6. Glue. Keep it warm in winter, cool in summer. I like to use the guns and mixing tips – personal preference. Sometimes I use the acrylic, Easyshoe Bond Fast Set (or Equilox, Equibond – all the same, with different labels) because it may be better glue for wet environments, and sometimes I use the urethane Vettec Adhere because it is less noxious and may do less damage to the walls. Adhere is also more user-friendly, and thus may be easier for beginners to succeed with.

7. Purge the glue before installing the tip. For Adhere, be sure equal amounts of both agents are flowing freely. For Easyshoe Bond Fast Set, be sure the (white) bonding agent is flowing constantly, about 1/10th the volume of the pigmented agent. If so, wipe the glue from the end of the tube, being careful not to mix the agents, and apply the mixing tip.

8. If using DIM, place it on the foot. If using felt (or other) pads, place them in the shoes.

9. Purge a grape-sized ball of glue onto the ground or paper towel, then apply the glue to the shoe. I avoid the sole, the ground surface of the wall, and the lower ½” of the cuff. The concern here is getting a glob of glue on the sole, which will then act as a stone in the shoe. To the rest of the cuff, I apply the glue liberally with a continuous ¼”-thick bead covering most of the gluing surface by the time I am done. In warm weather, I then put the shoe on immediately. In cold weather, I may stall for a bit, waiting for the glue to begin to cure. I repeatedly touch the glue with my gloved finger – at first the glue will attach a small “string” as I pull my finger away. As the glue starts to cure, this will not occur, and it is time to apply the shoe. As you do this, be careful not to drag glue from the sidewall onto the sole.

10. Wait. For some applications, I want to cure the glue while I am holding up the foot (less sole pressure, less compression of pads – I generally do this on thin-soled horses). On other applications, I want to cure the glue with the foot on the ground (easier for lame or impatient horses; may yield a more snug “performance fit.”).

If the shoe is to be cured in the air, put the shoe on, put the foot down on the ground, have an assistant pick up the off foot, then quickly put it back down (this spreads any glue that might have ended up on the sole). Pick up the foot you are gluing, check shoe placement, wipe off any excess glue, then hold the foot up until the glue dries.

If the glue is to be cured with the foot on the ground, place the shoe, have your assistant pick up the off foot, and then watch the glued foot carefully as the glue dries. At some point partway
through the cure, I switch places with the assistant, as I will want to be the one holding the foot during the latter (and more trying) minutes of the cure.

11. Repeat for the other feet. You will need to clean, purge, and apply a new mixing tip for each shoe.

12. Go around with a hoof pick and check the shoe heels to be sure they are bonded. If not, attach a new mixing tip and re-glue these areas. At this point, you can also seal the tops of the shoe cuff with a thin bead of glue. If you are slick, you can get all this done to all 4 feet with one mixing tip.

13. If you are using pour-in pads, inject them now. Decide whether you want a lot of sole pressure, a little, or none. If you completely cure the pad while you are holding the foot off the ground, there will be a lot of support/pressure. If you put the foot down to let the pad cure, there will be none. It varies case-by-case, but I tend to do something in-between.

14. When all the glues are cured, watch the horse move. Make final adjustments to breakover and heel rockers, as needed, based on movement.

Removal
After 5-6 weeks, Vettec Adhere will become brittle enough that shoe salvage is not terribly difficult (though it is still cheaper to buy a new shoe than it is to pay me to clean an old one up for you). I take a ¼” flathead screwdriver and work it between the shoe and the hoof, separating the bond.

With Easyshoe Glue (Equilox, Equibond…) at 5-6 weeks, the glue will not be brittle – the screwdriver method rarely works. Instead, using my hoof knife, I cut ½”-long slits in the top of the cuff, dividing the cuff into 6 sections around the circumference of the foot. I then use my shoe pull-offs to peel and rip each of the sections down and off the hoof wall individually.

Tape-On Application
A hybrid between the on-off hoof boot and a glue-on application is the tape-on boot/shoe. Many people trail ride in this setup, and I use it for rehab cases when I need to cover the foot for 24-48 hours and then gain access.

Warning: Results of this vary wildly. If a horse steps on his own shoe, they will pull right off. But I have also seen them stay on for a week and heard of them staying on even longer. I think it really depends on the way the horse moves and perhaps the environment. I have found that I can count on them for 36-48 hours as well as about anything – so this is how I use them.
If a horse absolutely must have 24/7 protection, use a boot or a glue-on instead. I like to say, “Tape-ons are for when you kind-of need a shoe and only need it for a short period of time.” All that said, this is still a very commonly useful tool, and has the distinct advantage that you can keep re-using the same shell over and over, often for years to come. This can also be the only option (for turnout or riding) when the bulbs or coronet has been injured and permanent shoeing is not desired. This method also works for use similar to a hospital plate when daily access is needed to dress a wound or surgery site.

This method is ideal for post-trim tenderness. A conscientious trimmer (with a stock of glue-on shells) who inadvertently causes post-trim soreness, can do a tape-on application to cover the foot for a few days, then pick up the boots at the next visit, clean them up and sell them to a gluing client. All it costs is the purchase of the tape and the time to clean up the boot.

**Mueller Athletic Tape** Application. Used alone with Glove Glue-On shells or as extra insurance with Glove hoof boots.
Mueller Athletic Tape

Note: Several years ago, I bought two cases of Mueller Athletic Tape, which I am still using. Apparently, it has since changed, and the material is now thinner (thanks, Amy Diehl), so these instructions may warrant some experimentation with the newer version of tape. I will update as I learn more. And, no, I will not sell you any of my old tape.

Here is my method:

1. Heat-fit a Glove shell – and strive for perfection. Do not cut the back out of it or open the sole for this method – just use a stock shell. As always, the better the fit, the better this will work. You want to end up with no excessively tight spots and as little air space as possible. The shoe should be difficult to pull off, once applied. Be sure the boot is clean – free of dirt and moisture.

2. No additional prep to the foot is required; just trim normally.

3. Wrap the foot with Mueller Athletic Tape as if you were applying a hoof cast. I generally use 3-4 rounds/laps of tape, wrapping so that I cover all of the side wall that the boot shell will cover and also lapping under the wall and slightly onto the sole.

4. Drive the boot shell onto the foot with a rubber mallet (or for trail use, a big stick). For the first 30 minutes, the extra friction provided by the tape will make this shoe very difficult to remove. After 30 minutes, the heat and pressure will have caused the tape’s own glue to wick through the fabric and there will be a pretty decent glue bond. During the first 24 hours, it is almost as hard to get off as it would be if it were glued with hoof adhesive.

5. The bond seems to disappear within 48 hours. I think dust simply works its way in and absorbs into the glue. I believe that when I (and others) have seen these stay on longer, it was simply because of good fit, the added friction, and a horse that never interferes or trips. Either way, removal after 36 hours is not an issue – you can easily pull them off by hand.

Mueller Athletic Tape in Gloves

The above wrapping method is even more useful as “Glove boot first aid.” If you are using Glove boots, carry a roll of Mueller Tape in your trail pack; it doubles as first aid tape, so shouldn’t take up extra precious space. If you rip a gaiter on the trail (or develop any other boot fit/performance issue) you can add the tape to the foot, knock the boot on with a stick, and ride on for the rest of the trip without a gaiter.

I even had one client who was using a #2 Glove when her friend threw a #0 horseshoe. They kept wrapping the athletic tape around the #0 foot until the #2 Glove fit and got the horse off the trail.
without further incident. My client discovered, at the same time, that her horse no longer needed boots for that particular trail anyway. Now, this is not a recommended application by any stretch of the imagination, but it did work for them.

**Smoothing Boot Fit Problems**

I like for my booting clients to have a roll on hand in case booting issues pop up mid-cycle. This is particularly common when I am in the process of growing out hoof capsule rotation or wall flares. The foot is getting more compact, so the boot fit will get sloppy over time. I do try to adjust for this at routine visits, but sometimes I misjudge. Hopefully, when I arrive for my scheduled visit, I can de-bug the boot fit, but having a way to keep my clients riding saves me some unscheduled trips.

I recall two instances where I had to use the tape application with the Gloves as a permanent fix. I didn’t like it, but it was the best I could do. Both were on the hind feet of horses with hip problems that rotated their foot on the ground under load. After several boot-fitting fails, I left both clients applying one wrap of tape prior to booting the hind feet. Sloppy, yes, but better than nothing, I suppose.

**Race Day**

This method, combined with adding Vet Wrap to the gaiter is how to make a bombproof Glove application. I don’t like to see clients train this way. I want to work through any booting bugs during normal rides. But on race day, show day, or that big group trail ride – that day when you want to be absolutely sure you don’t have any problems, it is worth the extra 3 minutes to put Mueller Tape on the foot, boot, then wrap the gaiter with Vet Wrap. Optionally, an added bell boot *seals the deal*.

**And the List Goes On...**

That’s the best thing about these two platforms (the Glove and Glove Shell). Your own imagination is the limit. While every boot and shoe can be modified to some extent, none other lends itself to so much possibility. In the past, I had to haul around a wide variety of options. Now, I find that I can get by with a full stock of only these two products – well – except that we do need them in larger sizes... and with some different tread options. 😊