



Patience and a Good Farrier Required

BY AMANDA DUCKWORTH

KEEPING A HORSE FIT and happy is a team effort, and that is especially true when it comes to hoof care. No matter how talented a racehorse is, bad feet lead to nothing good. Hoof bruises and quarter cracks commonly derail horses from intended race targets, and while they are separate problems, how one resolves the issues is similar. Both take patience, the correct diagnosis, and the work of a good farrier.

In general, when it comes to lameness, hoof bruises are fairly benign injuries. They are often called stone bruises because in the most basic cases, they are literally the result of stepping on a rock the wrong way. Of course, things are never always that straightforward, and they can also happen within the hoof itself.

“Bruises come from two things—the ground up or the hoof down,” said Mitch Taylor, who is the director of the Kentucky Horseshoeing School and currently the head of orthopedic podiatry at the Equine Veterinary Medical Center in Doha, Qatar. “Sometimes it is as simple as the horse stepped on a stone on the

ground that pushes up and causes the bruise. The other type of bruising we see in racehorses in particular is from the coffin bone. The coffin bone will actually bruise the sole from the inside rather than something bruising the sole from the outside like a stone.

“The way I approach both conditions is to have an accurate diagnosis. I want to know exactly what the problem is and hopefully what is causing it. Coffin bone hoof bruises happen when we over-trim feet, and it is very common in Thoroughbreds, and racehorses especially. Farri-



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ers inadvertently over trim the sole/foot in an effort to obtain correct hoof balance. If you trim the foot so much that you can feel the sole yield, that's not good, generally."

In addition to being trimmed improperly, sometimes the conformation of the hoof itself predisposes a horse to have trouble with hoof bruises. In those circumstances, maintenance is especially key.

"Commonly, they get bruises on their medial heel," said Dr. Craig Lesser, a podiatry veterinarian at Rood & Riddle Equine Hospital. "A lot of the horses that are slightly imbalanced or need a little bit of support because they have poor quality heels, those are usually the ones who do get bruises. They can also get them in the sole and other places.

"It is often times concussion related. There is excess concussion, more than the hoof capsule can handle. We can compensate for that by shoeing differently. You can do some things mechanically, and they may trot off completely sound, but in other cases, say a really deep bruise with some bone inflammation, it can take a week or two to get us fully there. It is very case dependent, but usually you can get a result pretty quickly."

Figuring out a horse has a hoof bruise is usually fairly simple, as they will go lame in that leg. However, that does not mean the injury is a recent one.



PHOTOS COURTESY MITCH TAYLOR

'Bruises come from two things—the ground up or the hoof down'

"Unlike a human, where bruises show up pretty quickly, sometimes it takes a while for bruises to show up in a horse's foot," said Taylor. "The way that you detect them obviously starts with the horse being off. You should use hoof testers.

"The basic industry standard if a horse has a bruise is that you find it, you hoof test it, and if you can, you X-ray it. Not many people will ultrasound the bottom of a horse's foot, but you actually can, especially if it has a thin sole. Then you facilitate healing by using a shoe with a pad or some other similar protective shoeing method."

No matter the cause of the hoof bruise, the standard approach to fixing one revolves around how the horse is shod. Personal preference comes into play to some degree, as does the formation of the specific hoof in question.

One of the biggest factors when determining the best course of treatment is dependent on the horse's schedule. Time is not always a luxury for a horse that is close to a race.

"Usually, depending on what their racing situation is, I like to pull the shoe off and put them in a foot pack for a day or two to pull the inflammation out," said Lesser. "Then they get a shoe on to support it and transfer the weight off of that heel. That's the ideal world.

"A lot of these horses, though, we can't give them a few days off. So, we have to do something immediately to get them going again. Usually, that is going to be putting something like a bar shoe on there for the short term and packing the foot with a medicated sole pack to try and pull out the inflammation."

As to what specific shoe is selected, it comes down to what the team of those caring for the horse choose. Different shoes come with different pluses and minuses.

"I like to use a short-heart bar or regular straight bar shoe to try and share that load and take it off the heel," said Lesser. "Some guys like to use a Z-bar that completely unloads that heel, but for me it doesn't give it enough protection.

"There are a variety of ways to go about it. There are a lot of

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things you can do, and there are a lot of newer shoes with newer materials besides just the regular aluminum race plate. We do use quite a bit of those with horses that are consistently getting bruises.”

It is important that hoof bruises are allowed to heal properly, and that infection is not allowed to set in. If it does, that can lead to a different hoof problem: abscesses.

“Bruises can sometimes turn into subsolar abscesses,” said Taylor. “That is the worst-case scenario. There is blood pooling in the interstitial tissues where it shouldn’t pool, and bacteria can get in there. A lot of times the soles are so thin they will tear a little bit, and then you can get some bacteria in there. That’s the perfect breeding ground. Then we have got problems and an entirely new issue.”

Working together to heal a hoof bruise is critical, and both Taylor and Lesser emphasized the importance of a good working relationship and good communication among all of the parties involved.

“It is a team effort,” said Taylor. “Trainers sometimes tell farriers how to shoe their horses, and there is a fine line there. We as farriers need to hear from trainers, veterinarians, and good riders on how the horse is going, but they also need to allow us to work within what the hoof is giving us. We have to be able to know our trade enough to be able to successfully navigate difficult feet,



The conformation of the hoof sometimes predisposes a horse to have trouble with hoof bruises

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and trainers need to believe that their farrier can do the job and do it correctly.

"I have always been a big proponent of education. The higher a farrier is in his education and experience, the less he is bullied around by the trainers. When you can explain your case better, the trainer is more likely to listen."

Additionally, a willingness to look at new techniques and options often proves helpful to the team and the horse.

"There is a lot we can do, if we work together," said Lesser. "Your imagination is your limit on how to help these horses out. Being willing to reach beyond just the traditional ways is really helpful in some of these tougher cases. There is no cure-all, and it is important for everyone to accept that going in."

QUARTER CRACKS

Another standard issue a farrier is going to have to deal with is quarter cracks, which is an accurately named hoof wall injury.

"More often than not, we have quarter cracks on the medial aspect of the foot, the back half of the foot," said Taylor. "The back quarter of the foot doesn't have any bone in it; it's cartilage and cushion. It's a crack that initiates from the coronary band down, as opposed to other cracks that start from the ground up. The way to deal with it is to basically make sure the foot is balanced, but that's not necessarily the easiest thing."

Much like other hoof injuries, it is important to detect the cause of the quarter crack when starting to plan for treatment, and often times it can come down to how the horse is conformed, trimmed, and shod.

"The vast majority of quarter cracks are going to be because of imbalance in the hoof capsule," said Lesser. "If available, it is really nice to get a set of radiographs and see if what the farrier is seeing matches what the internal bony structure is. Then, it comes down to balancing the external structure based on the internal structure, if that is something we can do.

"A lot of horses are short-shod,



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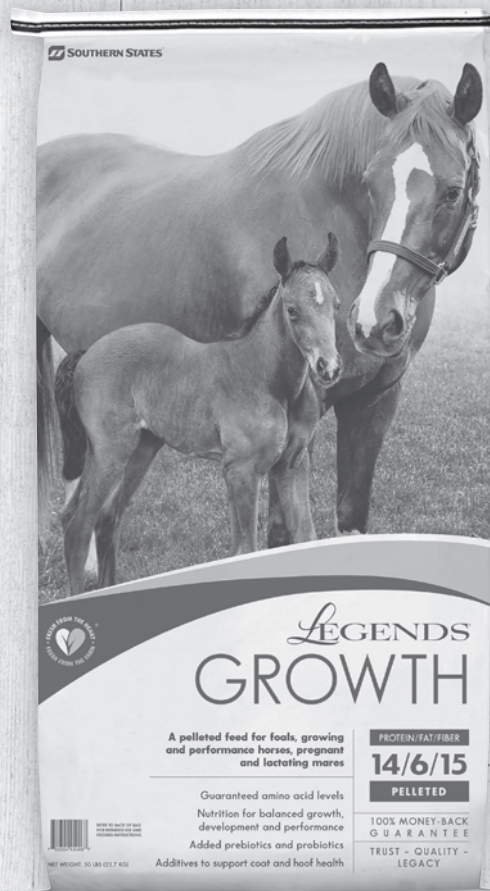
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and they can put a point of stress on the tubules on the coronary band. If there isn't enough caudal support, that can put a point of stress up on the coronary band causing it to break at that point if you follow the tubules up from the ground. For me, it comes back to the trim for everything."

Step one in the healing process is dependent on the severity of the quarter crack and whether it has become infected.

"You have to make sure there is no infection in the crack," said Taylor. "If a horse is out of training, sometimes we leave him barefoot and trim it. If he is in training, it's a whole different story. We have to make sure that we have all of the infection out, so we have to take a day or two to dry it, and then we have to stabilize the hoof capsule."

"We do that by either stitching it up with high tensile strength wire, and/or we can use a patch made from acrylic glue and fiberglass or Kevlar fabric. Then we put some kind of a bar shoe on it. We have patched quarter cracks and had them running in three days pretty regularly."

Whether the impacted hoof needs to be stitched together or a patch will get the job done depends on the extent of the injury.

"Depending on how bad the quarter crack is, whether it is a bleeding infected crack or just a superficial crack, I usually open them up," said Lesser. "It is kind of like a hang nail—every time you touch the hang nail, it hurts. For milder cases, if I can open them up so they aren't rubbing on each other, put a drain in them, then put an acrylic patch over top of them, usually that is enough to stop them from getting worse and restabilizes the hoof capsule."

"Once the hoof capsule is stable, usually you give them a day or two, and then as long as they are doing well, they can go back into work because that patch is now acting like an artificial wall. If it is deeper, and it's truly bleeding, some of those do need stitched. We usually stitch through the wall to hold it securely in place. It all comes back to doing the right trim for them,



An example of a quarter crack

and making sure they are nice and balanced.”

The type of shoe that proves best for quarter cracks often comes down to the specific horse in question, the extent of the injury, and personal preference.

“People use a Z-bar shoe or a three-quarter shoe,” said Taylor. “A heart-bar shoe is also a good way. Nowadays, we have polyurethane shoes, and a lot of times we can glue one on a foot instead of nailing a bar shoe on to help heal up the quarter crack. It stiffens it up and helps bind it.”

While the treatment plan is standard, one thing owners should keep in mind is that horses that get a quarter crack once are more likely to get them again.

“When the tissue heals from a bad quarter crack, there is always some degree of scar tissue, and scar tissue is always less pliable,” said Taylor. “Sometimes they are bad enough quarter cracks that they will



Crack under repair

have a scar inside the hoof wall that makes it a bit weaker. They are always a little bit more susceptible to crack any part of the hoof. It is very important that you keep them maintained and balanced.”

The good news is that with proper farrier work and maintenance, horses recover fully. Much like hoof bruises, it comes down to a team effort.

“The hoof regrows slowly, so it is going to be about a year until a quarter crack is fully grown out,” said Lesser. “If you get it under control and patched once, usually it starts growing out. As long as you have some decent hoof growth and you have a good trimming and shoeing job, often times it doesn’t need much more maintenance beyond that.”

“With any type of hoof injury, one of the biggest things is working with a good farrier who understands hoof balance and is willing to think outside of the box when you do come into problems. Any farrier is going to one day have to deal with a quarter crack or a hoof bruise. If the farrier is willing to try something new to figure out a solution for it, those are the guys you want to work with.” **BH**

Amanda Duckworth is a freelance writer based in Lexington.

An advertisement for Adeptus horse supplements. The background is a blurred image of a horse race. In the foreground, five white plastic containers of supplements are displayed. From left to right, they are: Robust Performance (90-day supply), Nimble Mega-Nutrient (60-day supply), Nimble Mega-Nutrient (90-day supply), MBLE (90-day supply), and Persevere (90-day supply). The text "TAKE THE LEAD. NATURAL PERFORMANCE ENHANCEMENT" is overlaid on the image. At the bottom, it says "SCIENTIFICALLY FORMULATED SUPPLEMENTS FOR HORSES" and provides the Adeptus logo, phone number (1-866-ADEPTUS), and website (www.AdeptusNutrition.com). The Pyranha logo is also present with the tagline "Pyranha On. Pests Gone."