

The **Barrel Racer's** Guide to **Speed Development**

"How to reveal the freaky fast athlete in YOUR horse!"



BY Heather Smith

*The **Barrel Racer's** Guide to Speed Development*

"How to reveal the freaky fast athlete in your horse!"

BY Heather Smith

I once came across some great horsemanship advice that suggests we do our *"feeling during the day and thinking at night."* I often remind myself of this in order to sustain a balance between the two. I'll be the first to admit that over the years, I've done way more thinking than feeling.

It's not that I haven't gained a lot through having this tendency to be such a dedicated left-brain student, with a desire to analyze and figure out how things work and why. The trouble with many barrel racers, is that they don't do enough *thinking OR feeling*. It's all too common to get stuck going through the motions (we've all done it), not so much aware of what's working, what's not working, or *why*. As the famous quote by W.L. Bateman says...

"If you keep on doing what you've always done, you'll keep on getting what you've always got."



Barrel racing has been in the Stone Age for too long when it comes to speed development. We breed for it, we (think) we train for it, we feed for it, but for the most part, it remains a gamble. Sometimes, we come across that *"freak of nature"* horse, or sometimes we stumble across the perfect recipe for explosive speed, by complete accident.

Like you, I had developed some ideas when it came to speed development based on what I've seen and experienced. We all look at everything through our own individual filters, based on our personal experiences. At first I thought that the truly fast horses were the Scamper-like *"daisy clippers"* with short cannon bones – lower legs that moved more like wheels. But then I'd come across extremely fast, leggy, race bred horses with knee action so high, when they ran it reminded me of a large, snorting Paso Fino. There were the horses that *looked or felt fast but didn't clock*, and horses that *looked slow and DID clock!*?

It didn't entirely make sense.

I learned that in most cases, observations like mine don't even begin to touch the surface of what can be gained through a combination of studying the facts – the **science of speed** - AND *really*

listening to, watching, and *feeling* our horse (*the ultimate source of feedback*), and then of course, in the end - *the clock won't lie*.

When I head down the alley, I want to do so with confidence. There are never any guarantees, but you could say that I like to have “*insurance*.” I prefer feelings of certainty over guessing and hesitation. Long story short, speed development has been just one of many areas where I had a feeling - *there was more to it, than what I already knew*.

Turns out, *I was right*.

Through debunking myths, and bringing clarity into areas that were otherwise grey, I feel as though I've made “*no brainers*” out of not just speed development, but *numerous subjects* that so many barrel racers continually question and stress over.

When it comes to speed development, in my book, “*Secrets to Barrel Racing Success*,” I describe several factors that contribute to the speed your horse is able to express in a run. They are:

- **Natural Talent**
- **Weight**
- **Soundness**
- **Conditioning**
- **Foot Placement**
- **Foundation**
- **Rider**

This manual, however, goes even deeper to demystify the ***two foundational qualities*** of speed. When focused on, these are the two areas that are most likely to produce the greatest results. They are:

1. **Movement Efficiency** – How a horse moves, the ability to carry out movement with efficiency.
2. **Horsepower** – The amount of force behind a movement.

The contents of this manual help make speed something you can very specifically condition for and develop, without all the guessing, experimentation, questionable theories, techniques, supplements and gadgets - *that often don't really work*.

“Racing is the constant search for the weakest link.” – Duane Bailey

Let's start by metaphorically comparing two horses...

Efficient

The first is a royally bred cutting horse reject turned barrel horse. He's genetically designed for extreme quickness, but due to his owner's circumstances, he's been put on the back burner. He hasn't been ridden or exercised in quite some time. Day after day, he stands around in his small

pen, while his muscles atrophy. He certainly doesn't lack coordination. Although he didn't make the "cut" at the futurities, he's a naturally talented athlete, and his specialized cutting training helped him even further develop that. Finally, his owner saddles up, rides him a few times, and begins to wonder whether he really has the speed required for barrel racing. What his owner doesn't realize, is that until this horse builds adequate strength, he won't be able to fully express his athleticism and his greatest potential will remain hidden.



Strong

Another horse is race bred to the hilt and went to the track as a youngster, where he achieved a fair amount of success. He's now been selected for a second career in barrel racing, and his new owner is anxious to get his barrel training started. After having been conditioned on the track, there's no doubt he's got the strength to propel his body at a high rate of speed between the barrels. But when it comes to the quick transitions required for efficient turns, this horse seems hopeless. In fact, just loping a small, balanced, correct circle is a challenge. In addition, he lacks mental coordination to think about anything other than just blowing forward. His new owner had high hopes for him as a barrel horse, but is having second thoughts. What she doesn't realize is that there is a lot that can be done (much more than what she's already doing) to develop his physical and mental coordination. Until this horse has adequate amounts of both of these things, his potential will never be fully expressed on the barrel pattern.



Of course, how these horses are bred *does* contribute to the level of speed they'll be able to express. There IS a big genetic component when it comes to "quickness," especially. However, as you can see in the examples mentioned above, these horse's circumstances – their development (or lack of it) plays a big part as well.

Most barrel racers don't realize the degree of influence they have over the speed their horses express in competition.

Again, there are TWO foundational ways to build speed – get stronger or get better at expressing strength. Another way to put it – put more force behind the movement, or improve the ability to coordinate and carry out the movement.

Ask yourself – What does YOUR horse need most?

Build Strength

Let's say you have a finished barrel horse that already has great movement efficiency established. He has a history of being solid, correct and consistent on the pattern. However, he's been on vacation for a few months and is needing to make some strength gains.

When we set out to make our horse's stronger, it's important to remember that we want the *right muscles strong*, and we want to develop them in a way that is specific to what we'll need from our horse in a performance. I could go into detail on all the muscular anatomy involved but I'd rather share common sense, easy to remember tips, that you can *take with you* and are likely to *stay with you* as you are exercising horses.

One of the best ways to condition a horse to run barrels, is to run barrels - or perform exercises that simulate running barrels, as closely as possible.

Hold Yer Horses

If you're in a hurry to add more practice runs into your conditioning program, there are several precautions to take, and things to be aware of as you go forward.

Repetitive barrel runs contribute to physical wear and tear in the horse and stress the entire nervous system.

If we ask our horses to make full blown runs too often, we take the risk that the repetitive physical and mental stress will eventually cause a "blow out." The good news is that it IS possible to make strength gains, that contribute to how our horses use that strength in a run, without making repetitive full speed runs. You don't *have to* go full speed to improve strength. You can cause micro stress to the muscles used in a run and build strength in them, without stressing the horse's body and mind to the max. (By "micro stress" I'm referring to the small tears that occur in muscles and connective tissues during exercise. Strength is built as this trauma heals, it's a normal bodily process necessary to build strength.)

Below are some suggestions for striking a balance...

1. To lessen wear and tear caused by repetitive hard turns, incorporate straight line sprinting.
2. To simulate the movements in barrel racing, incorporate small $\frac{3}{4}$ speed circles while still requiring good mechanics, ie. balanced, forward movement.
3. Work on collection, perform roll backs, lots of transitions and other exercises that help develop strength in a horse's hindquarters.
4. Mix it up, horse's are very sensitive and pick up easily on patterns (you don't want to train your horse to run at $\frac{3}{4}$ speed).
5. Ensure your horse stays in sync to your requests and responsive to the degree of speed you ask for.

Although you'll want to pepper some practice runs into your conditioning program, do so in moderation to protect your horse's physical and mental health.

In my book I mention the importance of stride length and even describe some specific steps for becoming aware of our horse's foot fall and increasing that stride length through specific training. When it comes to speed, it's been proven that those horses with a greater stride length are faster. So although we can train our horse to lengthen their stride, we want it to be something that comes naturally to them. One of the best ways to influence stride length is to build strength. A horse will be able to propel himself further with each stride, when he has adequate strength to move his body mass.

Too Much of a Good Thing

There's yet another reason why we should be careful not to over condition - an absolutely key part to this process is to realize that we not only want to prevent stress overload but when we make a competitive run, we want our horses to be *fresh, not fatigued or sore from yesterday's workout*.

The worst thing we can do for muscles we are trying to develop (or depend on in competition) is soak them in lactic acid.

Lactic acid is produced in the body when we exercise. The bigger the "burn," the more of it that is produced, and the more of it is likely to linger in the muscles, and create soreness. This is where proper cool downs come into play – adequately walking out your horse after exercise helps keep circulation going to move lactic acid through their system.

When it comes to building strength, it's critically important that you allow your horse adequate recovery time in between big workouts. As you're getting your horse in shape, that might mean you try to...

1. Challenge him physically two days a week.
2. Include easier workouts two days a week.
3. Include an easy workout or day off before and after making a competitive run.
4. Allow *at least* a two day break in between any especially challenging workouts, to allow for full recovery.

An example conditioning schedule that targets STRENGTH BUILDING

Monday	Regular workout
Tuesday	Challenging workout
Wednesday	Day off
Thursday	Regular workout
Friday	Regular workout
Saturday	Challenging workout - make a run or do sprints
Sunday	Day Off

You might think that there's no way you could arrange the rest of your life around what would be the perfect conditioning schedule for your horses. That's a valid concern. In that case keep it simple, and keep in mind...

1. It's ideal to give your horse a day off or have a light workout the day before competitions so he's fresh and not fatigued or sore.
2. It's ideal to give your horse a day off or at least have a light workout the day after a more challenging workout.
3. Basically, don't perform hard workouts for 2-3 days in a row to build strength, instead sandwich challenging workouts with a day of light riding or a day off on each side.

If you plan on physically challenging your horse in a workout, also give him recovery time in the middle of the exercise as well. For example, we want our horses to sprint relatively short distances in a barrel run. If you sprint your horse to condition him, do so in distances of about 200 yards. If you do more than one, short straight-away sprint in one session, be sure to allow your horse time to completely catch his breath and relax in between those sprints (you don't want to condition your horse to make good runs in a fatigued state). The more *"fresh exposures,"* the better. If you make a hard, fast run in a practice session, you're probably best to make that your ONLY hard, fast run in that session because of what is required of muscular and nervous systems to fully recover. Make *"quality over quantity"* your motto.

Condition your horse to express his speed when he's fresh, not fatigued.

Give your horse recovery time in the middle of a workout, in the days in between those more challenging workouts, and by all means, make sure he's not fatigued or sore from intense exercise in the day or two before a competitive run!

To make gains in strength, and to fully express it in competition, allow time for recovery – for micro-trauma to heal.

Improve Efficiency

Have you ever *REALLY* watched horses move, loose in an arena or round pen? Maybe you've really analyzed a horse you were thinking of buying or when you were trying to decide on a young prospect. Have you noticed that some move almost lethargically with somewhat of a *"thud"* when their feet hit the ground? And others move easily and lightly over the ground, like a rock skipping effortlessly across water? Those horses that seem to move with natural lightness and ease have better movement efficiency, and there IS a huge genetic component that comes into play here. This doesn't mean that the other type doesn't have a future in

barrel racing, but it may mean that their rider/trainer will have to put more focused effort into helping that horse develop and express quickness and efficiency. So keep in mind, the competition is tough, and that if you want to go to the highest levels of barrel racing, the odds are more in your favor if you start out with a horse that is a naturally good mover.



Movement efficiency is essentially “*quickness*.” Quickness can be defined as the measure of one’s ability to move without momentum. There is a difference between being quick and being fast. Quickness is about reaction time, responding to a stimulus, it’s how fast your horse is “*out the starting gate*.”

When training for greater efficiency and quickness, most of the noticeable gains will come to horses who are young and uncoordinated. As they learn to better utilize and control their body with a rider, they become much more efficient movers. It’s possible, however for an older, finished barrel horse to NOT be a very efficient mover. There are many reasons why a “*finished*” horse may not move very efficiently, it can be due to the rider, training, or physical issues.

Whether you’re working with a young horse or trying to improve efficiency in an older horse, there are also some key points to keep in mind...

1. For best results at improving coordination, shoot for 3-6 sessions/week if possible
2. Work with a horse several days in a row for ultimate learning, frequency is important when introducing something new.
3. Don’t overdo it, if your horse is body sore or fatigued, it will prevent him from using his body efficiently.

**An example conditioning schedule
that targets IMPROVING COORDINATION**

Monday	Light workout
Tuesday	Regular workout
Wednesday	Regular workout
Thursday	Regular workout
Friday	Regular workout
Saturday	Challenging workout - make a run or do sprints
Sunday	Day Off

Whether you have a young, uncoordinated horse, or even an older one that could stand to gain efficiency, it helps to know (feel) what you’re looking for...

1. Get a feel for quality, efficient movement. If you don’t know the difference, get on a variety of horses, notice how the “*big time*” horses feel as they move.
2. Shoot for creating a similar “*feel*” in young horses and horses with less natural talent (as much as their fitness/ability level will allow).
3. Ask for good, forward collected movement, with balance (no extreme leaning) and responsiveness (reaction time).
4. Be consistent in what you ask, communicate clearly, and your horse is more likely to deliver quality movement efficiency when it matters most (in competition).

Once your horse is moving with good efficiency on a consistent basis, the frequency can be less and the intensity greater. Although it’s possible to really be building some of both at the same time, once good efficiency is established, switch the focus to building strength.

Use frequency to teach, and intensity to enhance what's learned.

Once you have efficient movement patterns established, it doesn't take as much to maintain them. A fit horse, with good foundation of movement efficiency and strength, may benefit from being ridden only 2-3 days/week.

**An example conditioning schedule for
MAINTAINING STRENGTH AND COORDINATION**

Monday	Day off
Tuesday	Regular workout
Wednesday	Day off
Thursday	Regular workout
Friday	Day off
Saturday	Challenging workout - make a run or do sprints
Sunday	Day Off

As with strength building, again one of the best ways to improve agility in a sport, is to play the sport. It's important though that we're particular about the way our horse moves. With some natural talent and specific training, a barrel horse will develop good habits, and develop their ability to fully express their speed and athleticism on the barrels.

"This is not about going back. This is about life being ahead of you and you run at it! Because you never know how far you can run unless you run." – Penny Chenery, Secretariat

Speed Development BONUS Material

Stall Potato?

A horse's living conditions can contribute to building strength and coordination. Horses who are fortunate enough to be raised in wide open spaces, with other horses on varying ground conditions are at an advantage. For one, their tendons, muscles and connective tissues develop strength because they are subjected to continuous micro trauma as they move, unlike their "soft" counterparts who are confined to stalls or small pens. Being with other horses means that there's likely to be some running and playing, ducking and dodging. It's actually possible for our horses to develop and maintain a degree of strength and coordination while we're off at school or work, etc.

Sprinting is actually a "gross movement pattern," it's ideal for horses (and people) to learn good running mechanics as youngsters, by just DOING it. However, there are some horses (and children) who are raised without ever really spending a significant amount of time running and playing, turning and burning. Think of a child raised on video games, without encouragement or opportunities to run and play. In the arena or on the athletic field, the stall and/or couch potatoes are at a huge disadvantage. They don't have the baseline of strength or coordination as those who developed naturally good mechanics early on. This doesn't mean it's not possible to develop both in those humans or horses, it may just take more time and conscious effort from the coach and/or rider to make that happen.

Remember, that although one of the benefits of our horses having turn out time in wide open spaces is to help maintain a degree of fitness through a “*self-exercise program*,” this is never a replacement for the specific strength conditioning and efficiency training necessary to bring out the best in a barrel horse.

Further References

- In addition to reviewing the contributing factors mentioned in the ***Speed Changes Everything*** chapter of “[Secrets to Barrel Racing Success](#),” pay close attention to the **Impulsion** and **Shorten and Lengthen** sections of the ***Quality Movement*** chapter, as these areas also especially relate to developing a horse to fully express speed.
- If you have a “lazy” horse, refer to this Q&A video/article at BarrelRacingTips.com - [Provide Motivation and Create Consistency in the Barrel Horse](#)
- To better balance your “whoa” and “go,” refer to these articles and videos at BarrelRacingTips.com –
 - [How to use Body Language to “Go and Whoa”](#)
 - [A Barrel Racer’s Guide to Impulsion](#)
- Although it was developed for human athletes, I highly recommend “[The No B.S. Speed Development Manual](#)” by Kelly Baggett, which has played an important, integrative part in developing my own understanding of the science of speed and how to develop it.
- Stay tuned for **Volume II** in the [BarrelRacingTips.com](#) series, a book featuring barrel racing exercises. It’s sure to deliver even more valuable tools for building strength, improving efficiency, helping you to achieve barrel racing success!