

Staying level

How the topline of your horse relates to behaviour and performance

by Chris Irwin

We may not think of the term 'level-headedness' as an expression from the equestrian world but it is indeed a key equine physiological and psychological concept. Put simply, the way to the mind of the horse is through its body, and if you change how your horse is shaped and moves then, you change, for better or worse, how it feels, thinks, and behaves. And from the rider's perspective, the most easily analyzed and influential part of the horse is the head. If you want to read what's going on in the mind of any horse just look at the position of and gestures coming from its head.

There are four basic shapes or 'top lines' of its neck and head that a horse can use to express itself. High-headed while inverted, low-headed, level-headed and high-headed while 'rounded.' High-headed and inverted (or 'hollow') causes the most problems, so we'll start there.

When the neck and head of a horse comes up above level with its withers then the back is forced to scoop down. The spine becomes hammock-like, or significantly lower in the middle than at both ends. This shape is what we mean by 'hollowed-out' or 'inverted.'

Several things happen to an inverted horse, and none of them are good. In human terms, I often compare the back of a horse to the power of a sprinter's body coiled in the starting blocks. However, an inverted back is the opposite of a rounded back. As soon as the head comes up and the back hollows out, the power and balance of 'round' is



While in California working on his new long-lining video, Chris is asked to work with "Sable," a 15-year-old alpha mare who is a schooling horse with a reputation for being stubborn and defiant. As Chris begins to long-line Sable, she starts out very braced, not wanting to have anything to do with the work. Notice the short, choppy steps from her hindquarters, the result of her hollowed back and braced neck and shoulders. She has locked her jaw, her ears are stiff and her tail is swishing.

gone and the hindquarters have been robbed of their drive. Your horse, to some extent, will be pulling itself along by its front legs instead of pushing itself from the rear. Even worse, an inverted back causes the horse to brace its entire body as if expecting to run into a wall, with predictably disastrous consequences for smooth forward impulsion and our ability to bend our horses.

Try a little experiment. Stand up, arch your spine to invert your lower back, and tilt your head back with your chin pointed up into the air as far as you can. Now try and lift one of your knees as high as possible. How stable and powerful do you feel? Now try just the opposite. Look straight ahead. Relax your spine so you're standing with a straight and relaxed lower back. Now lift the same leg and notice how much higher (akin to a longer stride for a horse) you

can comfortably extend from your hip and how much more balanced you are.

As if the loss of power and balance weren't enough, an inverted spine causes the horse's vertebrae to pinch together. When that happens, the horse's spinal column starts producing adrenaline and sends it rushing into the brain. Bottom line, an inverted horse is unlikely to give you the calm, focused awareness that is the foundation of not only quality movement but also desirable behavior. An inverted head and back not only indicates a problem, but is an integral part of it. And high-headed, inverted horses have lots of problems!

Interestingly, there are many people in the horse industry who maintain that a certain amount of 'high-headedness' in a horse is good, and even necessary. Too many jumpers, for example, say



Although she assumed to start out braced and inverted, within minutes of going to work, Sable likes what she feels. Instead of pulling on her mouth for the turns and half-halts, Chris uses his hands for support and physio-therapeutic massage applied with perfect timing according to her diagonal movement. As Chris turns Sable with his body to her body language, Sable unlocks her resistance and discovers how good it feels to be level-headed.

LODDON



The Wellington Range



**Box Stalls
Doors and Fronts
Portable Horse Pens
Accessories**



**Joe Ritchie
Hillfield Ltd.
Canadian agent for
Loddon Limited
www.loddon.ca
joe.ritchie@sympatico.ca
Phone / Fax: 1-613-348-1751**

that a horse needs to hold its head up high so it can read the course and 'scope' what it's being asked to leap over. There are also more than a few Western riding disciplines where you'll find this school of thought as well. All too common in both English and Western riding, we've all seen the horses that are always leaning their noses heavy and hard against tie downs and standing martingales. Ironically, these are also the horses that are usually involved in speed events, and we see



As Sable liked how it felt to go forward level-headed and Chris asks her to trot, the mare now truly becomes engaged and begins to stretch into his hands, asking for 'more'. Notice how her hindquarters are tracking up and her forehead is nicely extending from her shoulder. Her tail is quiet, calm and curled, her facial expression is soft and her ears are supple and forward. All of these are signs of a horse happy at work.

the riders savagely pulling back on the reins attached to extreme bits when they need their horses to shorten stride to 'gather themselves' or slow down. It's not pretty.

I don't buy it. Yes, horses do need to hold their heads high to scope out the jumping courses, and many of the breeds do indeed work better while 'high headed.' But far too many trainers seem unable to make the distinction between high headed and inverted and high headed and rounded. There are two types of high-headed horses, high and hollowed or high and rounded. While high and hollow is essentially hell on a horse, high headed and well rounded not only allows a horse to look farther ahead but can also feel heavenly for both the rider and the horse. For you jumpers who perhaps disagree with this, I urge you to take note of riders like Rodrigo Pessoa, and most of the top Germans who dominate Grand Prix show jumping, and you'll consistently see that the best in the world only ride calm and well-rounded horses to fences, not the stressed out inverted horses we so often see here in North America. This is not just my opinion, I believe the FEI world rankings speak for themselves.

Don't believe me yet? I challenge anyone riding inverted horses in speed events such as barrel racing, roping, pole bending, three-day eventing, and jumping to spend a day at the race track. Thoroughbreds are typically the fastest horses around. Sure, most of those wound-up thoroughbreds will be galloping around the track inverted, full of adrenaline and perhaps braced against their jockey. However, the very best horse-and-jockey teams will be able to work together to relax and

become level-headed as they push towards the 'home stretch.'

The opposite of high headedness is, of course, low headedness – or what coaches coin 'long and low.' A low head is a much more positive sign. When a horse lowers its head, the dreaded hollow spine disappears and its back naturally lifts and rounds. This causes the spine to stretch out, and when a horse's vertebrae stretch out, its spinal column starts to produce endorphins instead of the dreaded adrenaline.

If we have learned to ride with seat, legs, upper body, and hands that stay out of the way of interfering with the natural back-to-front diagonal flow of impulsion and instead actually accentuate or 'aid' this movement, (this is why we call riding skills 'aids') our horses will relax, lower their heads and the endorphins will bring magic to the horse. For the horse, it's just like falling in love. Or at least getting a really good professional massage! As their backs slowly round up and their necks start to release down, you can see the negative energy melt away from them.

Low-headed horses are calm and relaxed. That's a great improvement over angry, fearful and defiant. Getting a horse to lower its head is always my first

strategy to deal with most behaviour issues. 'Long and low' can and should be a vital part of stretching or warming up for any horse and it's also a much-needed transitional phase for horses who have only worked inverted. A chronically inverted horse who has worked with a hollowed spine for most of its life, (and there are far too many of them out there in both English and Western barns) will need to spend a significant amount of time enjoying the physiological benefits of stretching its vertebrae while moving in a long and low frame.

However, a horse working with a low head, while very mellow, is not in the best frame of mind for speed, agility, or to be asked to leap over a big fence. Calm and relaxed isn't necessarily where we want to be either. Just because a horse is calm doesn't mean it respects you or, in fact, wants any-

transitional phase, a warm-up to loosen muscles and get into a calm, work-oriented mindset before moving on to the more difficult gymnastics.


You've probably guessed what we're aiming for is somewhere in the middle: level headed is what we want to start with and is a definite requirement before we try to move to the next step of high headed while collected. Somewhere between the stress and dysfunction of the hollow back and the serene complacency of the long and low head is the happy medium that is the truly level-headed horse. Like a contractor building a house, we must take the time and painstaking measures to make absolutely sure our foundation is level before we begin building.

In the coming months, we'll look at the art and science of what it takes for a rider to affect positive change with our horses so that we truly are 'aiding' our

Only 20 minutes after starting out inverted and resistant, as Sable began to stretch at the trot, Chris began transitions up and down through the gaits and introduced Sable to more gymnastic lateral work. Notice her back and neck are rising and rounding, her tail is very calm and curled, and her expression, while still soft, has become very focused on her work. Also note the contact is soft as Sable realizes she can carry herself in a balanced and well-rounded frame.



thing to do with you at all. This isn't good enough. We want calm and relaxation, but we also want athleticism and focus. We want the horse's undivided attention, and a low-headed horse is simply not in that frame of mind. There is a time for long and low therapy and there is a time for level-headed or collected work. Low headed is really just a

equine friends. The goal will be to help inverted horses relax and become supple with long and low work, find improved balance and greater impulsion with level-headed work and then, finally, how to aid our horses into the power and grace of working truly 'well rounded' and 'calm and collected.' 

As the muscles through Sable's topline from hindquarters, back, shoulders and neck have been working "rounded" and with correct bend, she soon wants and needs to stretch these muscles to release the tension in her body that has been accumulating for years. Sable is now associating "contact" and working with Chris as a physio-therapeutic "feel good" experience as the vertebrae in her spinal column are now releasing endorphins instead of adrenaline.



KEEPING THEM COMPETITIVE IS A SCIENCE.

At Life Data Labs, we pioneered a scientific approach to equine hoof health through nutritional supplements. We're the standard when it comes to hoof care...

because we know that your horse can't be competitive if he isn't healthy.

You'll only find our Farrier's Formula® at vets, farriers or through tack and feed stores.

Life Data
Labs Inc.

The Science of Equine Nutrition

Canadian Distributors:
High Country Horseshoes Ltd.
Langley, B.C. Tel: 604-530-0761
Hoof & Nail Farrier Supplies
Calgary, AB Tel: 403-252-1661
Life Data Labs, Inc.
6405 Northern Drive, Mississauga, Ontario
Tel: 800-624-1873

