

TDNQA

Dr. Wayne McIlwraith is a renowned international practitioner, surgeon and researcher at Colorado State University.

*McIlwraith, a University Distinguished Professor and Barbara Cox Anthony University Chair in Orthopaedics, recently caught up with TDN's Steve Sherack to discuss the use of nasal strips and **California Chrome** (Lucky Pulpit)'s Triple Crown bid. **FLAIR Nasal Strips**--created by equine veterinarians Edward L. Blach and James R.*



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Chiapetta--have been used by dual Classic winners I'll Have Another and California Chrome. Regulators in New York recently gave nasal strips the green light following this year's GI Preakness S.

Q: According to its website, "FLAIR Equine Nasal Strips were designed to support the soft tissues of the nasal passages to help maintain the integrity of the airway during exercise. By doing so, university research has shown that FLAIR Strips reduce airway resistance, speed recovery after exercise and reduce exercise induced pulmonary hemorrhage (E.I.P.H.) or bleeding in horses lungs." Has there been scientific evidence that you can point to that backs this statement up? And if so, why haven't they proven to be more popular?

A: There is quite a bit of science and published work on nasal strips. There was a study done by Dr. Howard Erickson's group at Kansas State University that showed that there was a significant reduction in E.I.P.H. with nasal strips, and there was another conducted by Dr. Ray Geor of Kentucky Equine Research (who has since retired), which also validated this.

There was also a good study at Michigan State by Dr. Susan Holcombe and company where they showed that the main effect of the nasal strip was a significant decrease in inspiratory air resistance--and this is the crux, really. They did show with negative pressure measurements that it took significantly less effort for a horse to breathe in. Horses are nasal breathers, and there has been separate research that has shown that the main resistance in the airway is at the nostril level.

Erickson's group also did a study on 400 Thoroughbreds in Florida. Horses with the nasal strip had a win percentage of 3.4% higher than horses that did not wear one. And they had a 15% decrease in the interval to the next race. One might relate that to more ease with breathing.

There was a treadmill study done by Dr. McDonough of Kansas State University that also showed that nasal strips were equivalent to Lasix. They had groups with and without nasal strips, with and without Lasix, and another with Lasix plus nasal strips. That study showed that nasal strips could do as well as Lasix and could increase endurance.

It is somewhat puzzling that nasal strips aren't more popular because the two veterinarians that developed them have supported critical research that provides scientific evidence for their use. Nasal strips have been embraced by some--not quite by all--but that's the way things go. Even when you get scientific support, that doesn't necessarily mean that people are going to accept them or change what they do--we commonly see that in veterinary medicine. Acceptance is always difficult if the positive effects are subtle rather than obvious.

Q: How much scientific research is still in the works regarding nasal strips? Is this an important area of research right now?

A: I don't know if there are any ongoing studies at the moment--they've basically proven their point and the people that are using them, believe in them. Who knows? Maybe if California Chrome wins the Triple Crown, they will become more popular going forward.

Q: We recently received this question from a subscriber, which hopefully you can shed some light on. True or false? A horse's nasal passage is encased in the skeletal bone of the skull. A nasal strip may lift surface tissue beneath the skin on the exterior of the skull above the nasal passage, but in effect, does nothing to increase the diameter of the interior passageway.

A: That's incorrect. A picture is worth a thousand words ([click here](#)). The reason that it works is because the nasal strip goes over the soft tissue of the horse's nose that covers a void in the bony skeleton. The nasal bones don't project forward all the way to the nostrils--there is a gap, and the (above click-through) diagram shows that quite well. Photographs and videos of horses competing without a nasal strip show the skin sucked in in this location and this is probably the simplest demonstration of what the nasal strips do.

Q: New York State Gaming Commission Equine Medical Director Scott Palmer recently issued the following statement allowing the use of nasal strips in New York. "Equine nasal strips do not enhance equine performance nor do they pose a risk to equine health or safety and as such do not need to be regulated. While there is research to indicate that equine nasal strips decrease airway resistance in horses and may decrease the amount of bleeding associated with E.I.P.H to some degree, I am unfamiliar with any research indicating that equine nasal strips enable a horse to run faster with nasal strips than without them. In other words, there is no evidence they have a performance-enhancing effect. Equine nasal strips do not pose a welfare or safety risk to the horse. They are applied to the top of the nose and anyone can see their use prior to a race. If [properly] applied, equine nasal strips cannot interfere with performance. In my opinion, equine nasal strips fall into the same category as tongue-ties." Do you agree/disagree with Palmer's statement? Should they be allowed on raceday?

A: I'm good with this, but the nasal strips do have to be properly applied over the correct area to be effective. Science has shown that you make it easier for the horse to breathe, but does this enhance performance? I don't think so.

Q: What have you thought of California Chrome's improbable rise to the top this spring?

A: I think it's great. The horse has been training at Los Alamitos, which is across the road from Equine Medical Center, where I perform surgeries every other weekend. Equine Medical Center does Art [Sherman]'s work at the racetrack and I have done a number of surgeries for him. California Chrome and Art Sherman have been great ambassadors for Los Alamitos where Dr. Ed Allred has rolled out the red carpet for Thoroughbred trainers' transitioning from Hollywood Park--it's a great story!

Q: Will we finally see our 12th Triple Crown winner June 7?

A: I really hope so. Art Sherman is very positive about the horse getting 1 1/2 miles. In fact, when I spoke to him after the Kentucky Derby, he was more worried about bringing the horse back in two weeks [for the Preakness] and was quite confident on him getting the distance. [👉 CLICK HERE TO SHARE THIS STORY](#)