



HEALTH ZONE *Lameness*

Joint Injection Refresher

BY STEPHANIE J. CORUM

Osteoarthritis and joint injury and disease. If you own a Thoroughbred or have ever dealt with lameness, you've likely heard these words tossed around. This is because the strain of a horse's repeated effort performing takes its toll on joints' synovial fluid and cartilage.

With osteoarthritis, for instance, cartilage degrades faster than it can rebuild, which in turn causes inflammation in the joint. In addition, the synovial fluid that serves to lubricate and cushion the joint becomes less viscous (it thins). In these cases the pain can come on slowly and subtly until the horse becomes obviously lame or exhibits decreased performance. When this happens veterinarians often prescribe intra-articular joint injections, which they administer directly into joints. By medicating a horse's joints they aim to decrease inflammation; restore performance level; and protect the existing joint cartilage. This technique will not, however, "cure" joint disease or create new cartilage.

Using joint injections to help treat common causes of lameness and reduced performance

Dr. David Frisbie, associate professor of equine surgery at Colorado State University, believes that joint injections are the most beneficial joint therapy and provide the most good for horses with active inflammation in one or more joints.

In contrast, he said, lame horses without active joint inflammation might not improve with injections because the pain source is likely elsewhere in the horse's body. Veterinarians are quick to point out that owners should not use injections as

performance enhancers or to mask pain, but rather to help horses perform their jobs comfortably and prolong their athletic careers. This can be a difficult tightrope to walk. Dr. Duncan Peters, director of the Clinical Equine Sports Medicine Program and associate professor of Large Animal Clinical Sciences at Michigan State University's College of Veterinary Medicine, said this is an ongoing dilemma in the sport horse world. It is also an important reason for obtaining a definitive diagnosis.

Veterinarians stress the importance of approaching each case individually and conservatively. Joint injections are only part of a much bigger joint management picture that includes rest, proper diet, and optimal weight, and non-steroidal anti-inflammatory drug administration.

Proceed with Caution

As with most good things, joint injections have their downsides. First and foremost they are costly, averaging upwards of \$100-250 per joint. The age of the horse and the owner's performance expectations also come into play (Is it worth the expense if he's nearing retirement or not aiming for a competition goal?). The horse also might not respond to treatment because the pain is located around, and not in, the joint, or because the time lapsed from injection to performance is not quite right.

Further, there are some uncommon but potential complications. Anytime you stick a needle in a joint there's a potential for infection, so Peters said the veterinarian's injection method must be sterile. There's also the chance the horse might develop a joint flare, also called reactive synovitis, a less-damaging joint inflammation that occurs following an injection.

As a preventive method, veterinarians sometimes inject a small amount of antibiotics along with the joint medication. However, only 0.1-0.5% of injected horses suffer from either a joint infection or joint flare. If the veterinarian injects the horse with corticosteroids—potent anti-inflammatories used as joint medications—there is a very small chance this could induce laminitis, but this likely only occurs with extremely high, prolonged doses. Finally, articular cartilage degeneration or thickening of the fibrous joint capsule lining can occur in horses that have received multiple injections in the same area over time and make injections more difficult.

Currently on the Market

The particular substance injected depends on the joint involved, the veterinarian's preference, the horse's function,



CHRISTY WEST

Joint injections are only part of a joint management program that includes rest

Stamina. Performance. Recovery.

NEW!

Introducing New Red Cell® Performance Supplements

During training and key events, **RED CELL® COMPETITION** supplement promotes and supports stamina and peak performance, allowing horses to perform longer.* After competitions, **RED CELL® RECOVERY** paste helps horses recover faster* so they can resume their training regimen with the same intensity.



*Data on file.



University tested to keep horses performing their best.
Visit horsehealthproducts.com for study results.

and the timing before competition (if applicable). Two common injectables are hyaluronic acid (HA, marketed as Legend) and polysulfated glycosaminoglycan, or PSGAG, (Adequan, which, after experiencing a supply shortage earlier

Dandy Products, Inc. Padding & Flooring Specialists



"Padding At Its Best"

Breeding Sheds, Stocks, Stalls, Trailers, Exercise & Training Areas,
Induction & Recovery Rooms Table & Surgical Pads, Neo-Natal Foal Beds

Non-Slip Safety Floors for All Areas

Pavesafe Bricks & Tiles, Trac-Roll & Vet-Trac Floors, Wash Stall, Grooming, Aisleway and Trailer Mats

Toll-Free 888-883-8386 • 513-625-3000 • FAX 513-625-2600
3314 State Route 131, Goshen, Ohio 45122 • www.dandyproducts.net

RED CELL® LAUNCHES NEW PERFORMANCE SUPPLEMENTS

Regardless of the type of event, all equine athletes require nutrients for stamina and performance. Now equestrians can keep their horses performing their best with the introduction of two new Horse Health™ products: Red Cell® Competition supplement and Recovery paste.

Red Cell® Competition supplement allows horses to perform longer* during training and key events by promoting and supporting stamina and peak performance. It contains two antioxidants, superoxide dismutase and vitamin E, that scavenge and reduce free radicals, which cause damage to cells and tissues. An overproduction of free radicals results in oxidative stress, causing a reduction in available energy and leads to fatigue. This daily pre-performance supplement decreases oxidative stress associated with strenuous exercise.

Red Cell® Recovery paste helps horses recover faster* after competitions so they can resume their training regimen with the same intensity. It combines superoxide dismutase that decreases oxidative stress associated with strenuous exercise, with branched chain amino acids and electrolytes to address the needs of the performance horse. Branched chain amino acids aid in proper muscle function and repair, and maintain and minimize post-exercise muscle breakdown that occurs after intense training/competition. It also contains electrolytes to help replace fluid and minerals lost through sweat.

Supported by university research, these new performance supplements were scientifically formulated to support the horse before, during, and after the event.

For more than 30 years horse owners all over the world have relied on Horse Health™ Products to provide quality products that get results at an honest price.

For more information on the Red Cell® performance supplements or the entire Horse Health™ line, visit www.horsehealthproducts.com or call 800-848-2359.

*Data on file

EPIPHYSITIS WEANLINGS OSTEOCHONDROSIS NAVICULAR SYNDROME SESAMOIDITIS
 BUCKED JOINT SHINS BONE SPURS ARTHRITIS EQUINE RACING BREEDING SALE SHOW TRAINING ATHLETE
 GUARANTEE MANAGEMENT STRENGTH INJURY SWELLING POST-SURGERY LAMENESS DIET CARE
 RADIOGRAPH INFLAMMATION SCOPING SUCCESS STORIES USA OPTIMAL CARTRIDGE DEVELOPMENT HEALTH PELLETS
 DELIVERY HORMONES SCOPING WATER-PROOFING INGREDIENTS BUILDING BLOCKS
 MICRO-SIZED ISOFLAVONES VITAMINS MINERAL NUTRITION SUPPLEMENT HORSE
 BROODMARES CELLS AND NUTRIENTS VITAMIN ACID BONE GLUTAMINE GLYCINE
 PROTEIN AMINO ACIDS COLLAGEN DOSE MILLIGRAM GLUCOSAMINE CHONDROITIN
 SURGERY LAMENESS DIET CARE PRODUCT SCOOP SUCCESS STORIES USA
 OPTIMAL CARTRIDGE DEVELOPMENT HEALTH PELLETS
 WATER-PROOFING INGREDIENTS BUILDING BLOCKS MICRO-SIZED ISOFLAVONES
 VITAMINS MINERAL NUTRITION SUPPLEMENT HORSE BROODMARES CELLS AND
 NUTRIENTS VITAMIN ACID BONE GLUTAMINE GLYCINE PROTEIN AMINO ACIDS
 COLLAGEN DOSE MILLIGRAM GLUCOSAMINE CHONDROITIN SURGERY LAMENESS
 DIET CARE PRODUCT SCOOP SUCCESS STORIES USA

STRONGER.



www.DocsProductsInc.com
866-392-2363



Dr. Douglas R. Beebe • Lexington, KY



— ELITE —
EQUINE

EXPERIENCE A PERFORMANCE REVOLUTION.

LIFELINE is an entirely new approach to equine performance and health. Discover the power of our serum-based active ingredient, BioThrive.™ Results within 14 days.

 **LIFELINE**[®]
watch them thrive.



JOINT



GUT



RESPIRATORY

JOIN THE REVOLUTION
WatchThemThrive.com

PLATINUM PERFORMANCE® FORMULAS FOR RACING SUCCESS

What supplements do Charlie LoPresti (conditioner of two-time Horse of the Year Wise Dan) and other trainers use in their programs? LoPresti is a big advocate of Platinum Performance® Equine. "I really believe in this product," he said. "I can tell you it's really helped my horses. I get a big drum of it every couple of weeks. We don't use any other supplement."

Platinum Performance® Equine was

formulated at a veterinary hospital in 1996 and has been providing results for horses ever since. It was designed to impact virtually every aspect of horse health from joints to coat to hooves, and everything in between.

When LoPresti first read the Platinum label, he was pleased. "It has electrolytes in it, biotin in it, and there's joint compounds in there. It's just so much easier to use one supplement," he said.

"And the horses like Platinum. I've never seen a horse that won't eat it."

In addition to Platinum Performance® Equine, LoPresti also gives his horses Platinum Gastric Support for stomach health because gastric ulcers can be painful, deter a healthy appetite, and inhibit athletic performance.

Talk to your equine veterinarian or visit PlatinumPerformance.com to learn more, or call 800-553-2400.

this year is now back on store shelves) that veterinarians can administer intravenously or intramuscularly, respectively, or directly into the joint. They both aim to decrease inflammation in the joint.

Hyaluronic acid is a normal component of synovial fluid and cartilage. When joints are damaged, inflammatory cells and enzymes degrade and deplete the natural HA. Exogenous HA injected directly into the horse's joint acts as a mechanical lubricant and anti-inflammatory.

Polysulfated glycosaminoglycans are considered more "disease-modifying" because they work on the collagen fibers and intercollagenous tissues that comprise the cartilage matrix. They have been shown to inhibit the effect of various enzymes associated with cartilage degeneration.

Because these two drugs act in different ways, veterinarians might administer one of them alone, in combination, or with other medications, depending on the severity or stage of disease.

Injection Decisions

While Legend and Adequan are both FDA-approved for helping joints heal, they are not approved for disease prevention. However, 70-80% of veterinarian respondents to an American Association of Equine Practitioners (AAEP) survey said they use them as preventive measures, said Frisbie.

"It is becoming very common to inject joints before there appears to be a clinical need," he said. "There is no data that this is effective at all, and further, if we believe that the injections decrease inflammation and if inflammation is not there one could argue there is nothing to have an effect on. I think waiting until clinical signs are present is more effective."

Peters agreed: "If the joint is healthy, why do you need to go in and treat it? Can you make a good joint better? Does it increase the performance career? There are no studies showing that."

The AAEP recommends veterinarians inject joints only if they need it—meaning a veterinary examination using nerve blocks and diagnostic imaging has determined a lameness or performance problem is within the joint.

On the other hand, if multiple injections into the same joint are needed to keep the horse sound and competitive, "you should probably find a new occupation for that horse," said Peters.

There is also the question of time off from performance following an injection. Peters noted there is a move in the racing industry (and veterinarians are giving some thought to it in the performance disciplines) to determine the appropriate length of time following injections before horses are able/allowed to return to competition. Of course, what makes finding these answers so very difficult is that no two joints or horses are exactly the same and can respond differently to treatment.

Take-Home Message

Inflammation is the initial problem that occurs in joints. Left unattended, it might eventually lead to degenerative joint

QUILLIN
Leather & Tack

Sale Halters (from)	\$29.95
Lead Shanks (from)	\$25.95
Sale Catalog Covers	\$59.95

Plus MORE Great Custom Made Leather Goods
Full Service Repair & Engraving - All At Our Shop!

CALL OR DROP BY OUR MAIN STREET STORE
VISIT & ORDER ONLINE AT QUILLIN.COM
SINCE 1982 ... KENTUCKY'S LARGEST CUSTOM SHOP
WE SHIP WORLD WIDE

1929 South Main Street • Paris, Kentucky • 40361
(800) 729-0592 • www.Quillin.Com • facebook.com/QuillinLeather

EXPERIENCE AN EQUINE PERFORMANCE REVOLUTION

You know the stress of racing, training, and trailering can take a toll on your horse's performance. Joint soreness, stomach upset, and respiratory issues can lead to significant losses in training time and competition readiness. But you can support your horse's performance and health with all-new LIFELINE® Equine performance products.

LIFELINE works because of BioThrive™ bioactive proteins, our serum-based active ingredient that is proven to help achieve optimal performance in horses. LIFELINE supports and maintains joint mobility, normal respiratory

response, healthy immune response, gut health, and peak condition.

A recent gait analysis study at an accredited university demonstrated longer stride lengths and extended range of motion in horses undergoing daily exercise after just 14 days on LIFELINE. By 28 days, even greater stride length and range of motion were seen. These results suggest optimal joint function and comfort in performance horses on LIFELINE during training.

LIFELINE is not a vitamin, mineral, or herbal supplement, which typically target nutrition and work in just one sys-

tem at a time. LIFELINE works multisystemically to support response and performance in multiple areas of equine health. Plus, the beneficial effects of the ingredients in BioThrive™ have been documented in more than 300 published, peer-reviewed journal articles.

LIFELINE Equine Elite™ and LIFELINE AgeWell™ help horses move effortlessly and feel their best. And you'll notice a difference in as few as 14 days. Visit WatchThemThrive.com for more information on the study, to read user testimonials, and to learn more about LIFELINE.

disease, which horse owners must take very seriously. There should be good, solid discussion between owner, trainer, and veterinarian considering issues such as costs and what is expected of the horse. Once these are established, the veterinarian can prescribe the best choice of treatment, which might include intra-articular injections of established medications or newer therapies such as IRAP, stem cell, or platelet-rich

plasma injections (see sidebar). Combine that with plenty of down time and good management to help the horse remain as pain-free as possible. **BH**

the **HORSE**
YOUR GUIDE TO EQUINE HEALTH CARE

Excerpted from *The Horse: Your Guide to Equine Health Care*. Free weekly newsletters at www.TheHorse.com

This is my horse™

I'd been training for more than 3 decades when Wise Dan came along. As soon as we started him as a colt, I knew he was special. Most people don't realize what goes into developing a racehorse. You have to be certain about how you train, what you feed, and what kind of supplements you use. For me, since 2005, that's been an easy decision. I only use what works, and that is Platinum Performance. The horses love to eat it, and I like that it covers all the basic health needs of the horse. After two consecutive Horse of the Year honors, I'm glad everyone has gotten to see how special Wise Dan really is.

Charlie Lopresti

CHARLE LOPRESTI
Racehorse Trainer
Platinum Performance® Client since 2005

WISE DAN
Two-time Horse of the Year

CHARLIE
SUPPLEMENTS HIS
HORSES WITH:



PLATINUM PERFORMANCE® CJ FOR:

- Joint Health
- Hoof Health
- Skin & Coat Health
- Performance & Recovery
- Digestive Health
- Bone & Tendon Health



PLATINUM GASTRIC SUPPORT® FOR:

- Healthy stomach
- Normal gastric acid levels
- Maintaining appetite and digestion

PLATINUM
PERFORMANCE

800-553-2400

www.PlatinumPerformance.com

©2014, Platinum Performance, Inc.