

# Joint Ventures



A new approach to fighting inflammation

**Text** Kristy Vanderwende **Photo** Hassinger Equine Sports Medicine





When Emily Lundstrom's show partner, Too Hot To Be True, suffered an acute injury in his right hind ankle after getting cast in his stall in December 2015, she was worried.

The amateur competitor from Valparaiso, Indiana, was planning on a busy 2016 competing at Appaloosa

Horse Club (ApHC) shows. Her trainers, Emily and Chad Williams became increasingly concerned when traditional methods of joint therapy were not healing her horse.

"We tried injecting steroids and Hyaluronic Acid (HA), cold hosing and stall rest but after three months Elliot was still sore and there was still some swelling," Lundstrom said.

"My veterinarian suggested trying something

called Pro-Stride and after about three days of stall rest my trainer called and said 'you are not going to believe this but I just took Elliot out on the lunge line and he is completely sound,'" she said.

Since performance horses typically suffer from joint pain due to intensive training and increased workouts especially at horse shows, joint injections are a frequent treatment across the equine world.

Advancements in equine sports medicine have paved the way for regenerative medicine, a holistic approach that

uses components of the horse's own body to regenerate damaged areas, to develop new and innovative options in joint therapy.

One new product has many in the show world abuzz. Pro-Stride Advanced Joint Therapy is getting results not only reducing inflammation in joints but also working to heal them.

Although first introduced in February 2015, the leadership at Owl Manor Veterinary, a privately held medical device company, has been working on developing point-of-care regenerative medicine products for over 15 years.

Previously predominately focused in the human market, regenerative products have now translated to animal health including both equine and canine markets.

Mark Schindel, CEO of Owl Manor Veterinary, explains that Pro-Stride has quickly become the most well-known and popular product of the three that the company carries in regenerative medicine. The other two products: ACT-PRP (Platelet-Buffy Coat Concentrate) and ACT-Cell Concentration are both most commonly used for treatments in tendons and ligaments while ProStride/ACT-Protein Solution (anti-inflammatory including IRAP) is mostly commonly used for treatment in joints.

"In short, we are taking the patient's own blood and natural healing properties and through proprietary devices, concentrating those various platelets, growth factors and anti-inflammatory proteins (which includes IRAP/ Interleukin 1 receptor antagonist protein) and putting them back in the patient in a more concentrated state to address joint injuries," Schindel explained.

Pro-Stride works to naturally address pain associated with arthritis and in turn support improved joint mobility. As a natural treatment, drug testing is not a factor, Schindel said.



**EMILY LUNDSTROM AND TOO HOT TO BE TRUE** at the 2016 Appaloosa World Show where they were Reserve Champions in Novice Western Pleasure. At top Dr. Hassinger starts an injection.

Dr. Jim Hassinger, of Hassinger Equine Sports Medicine and Rehabilitation in Aberdeen, North Carolina, first began using ProStride in May 2016.

“Pro-Stride was injected into the patient's stifle when routine steroid injections were currently not improving the patient's joint pain,” he said. “The results were remarkable and so we began using it on a more regular basis. To date, we have used it in almost all joints and in soft tissue injuries like deep digital flexor tendon tears.”

The biggest benefit of using ProStride, according to Hassinger, is that it combines the anti-inflammatory benefits of IRAP with the healing benefits of PRP (platelet rich plasma), which has been known to release growth factors and assist in repairing damaged cartilage and increasing the joints own production of Hyaluronic acid.

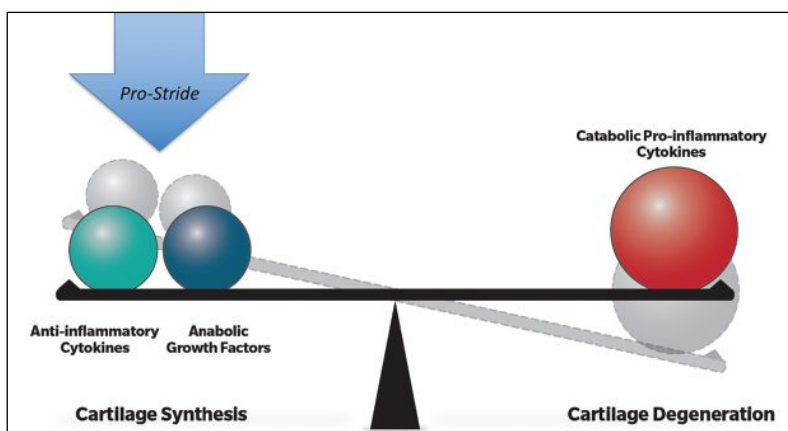
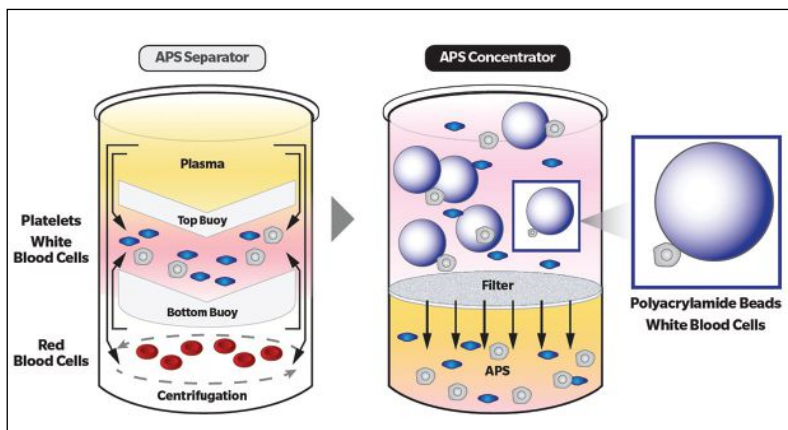
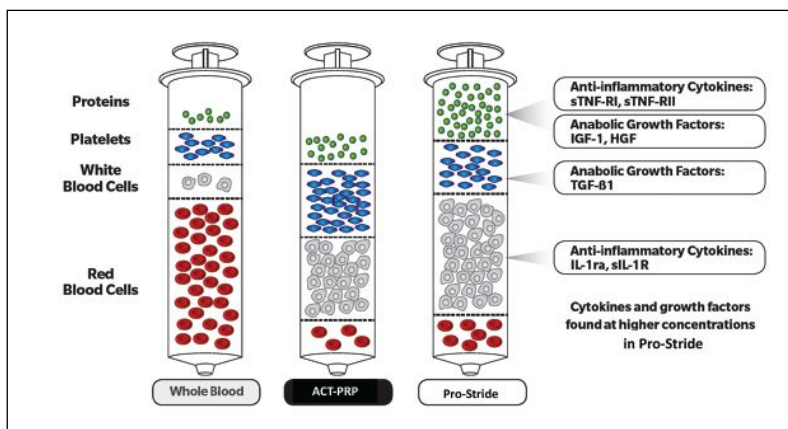
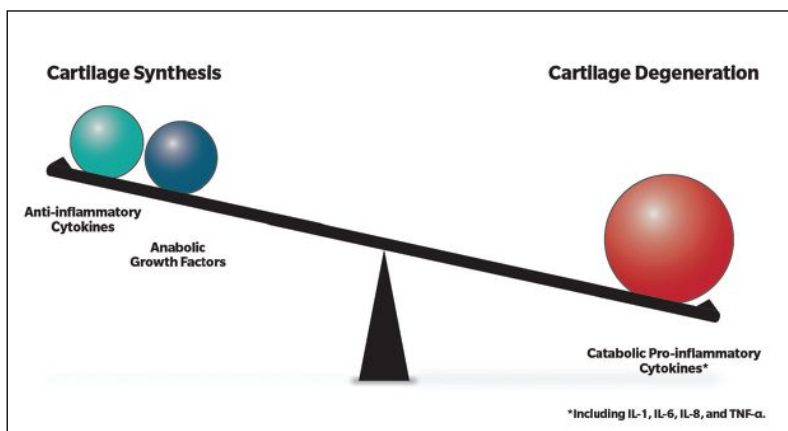
Unlike traditional IRAP products, Pro-Stride can be administered quickly in one visit even at stall side. It is a completely fresh not frozen treatment which eliminates a 24-hour incubation wait time and hazards of product shipping.

“The horse's blood can be collected and product injected the same day, unlike IRAP,” Hassinger explained. “Once blood is collected it gets run through several processes to create the final injectable product. The whole process takes about an hour. Its benefits are not immediate; clients often report it takes about seven days to feel the effects in their horses. Frequency of administration depends greatly on the injury being treated. For basic maintenance in joints, we often say one to two times per year.”

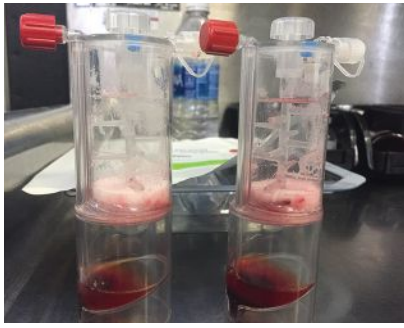
According to Hassinger, all horses are candidates for Pro-Stride. He finds the product especially ideal for horses that routine injections did not provide adequate relief like those with cartilage defects and for soft tissue injuries like navicular bursitis, suspensory desmitis, flexor tendon lesions and collateral ligament injuries.

**HOW IT WORKS ▶▶▶**

**Figure 1 illustrates the Cytokine Balance in OA. Figure 2 illustrates the Relative Quantities of Cellular and Protein Components in Whole Blood, P-PRP and ProStride APS, Figure 3 shows how a ProStride APS Kit Produces Autologous Protein Solution. Figure 4 shows how ProStride addresses Cytokine Imbalance in OA**







Hassinger said traditional joint injections of a steroid, chondroprotectant such as hyaluronic acid and an antibiotic are extremely effective way to reduce inflammation.

“This reduction in inflammation helps reduce pain and clinical signs observed, thus increasing performance,” he said.

Occasionally there is a larger degree of damage within joints that makes routine injections less effective or only work for a short period of time, according to Hassinger.

“In those cases, Pro-Stride is a great option as it provides more healing benefits than corticosteroids,” he said. “They can be used in conjunction or separate depending on the case and owner preference.”

Additional risks do not exist beyond routine joint flares, which can never truly be avoided but rather minimized with the use of sterile techniques, according to Hassinger. The cost of Pro-Stride is consistent amongst the location and completely dependent on the injury being treated.



The photographs at the top of the page show (left to right):

- The final product is located on the bottom of the device. This will be directly pulled and injected into the patient.
- The product in the middle stage of processing. The yellow solution at the top is the plasma that does not contain platelets or other beneficial factors. This is the ‘waste product.’ The Product at the very bottom is the red blood cells which are also waste. The fluid in the middle is withdrawn and this product gets placed in another tube for further processing.
- Sterile techniques help reduce the chance of complications like infections.



“Pro-Stride's cost is dependent on the location and injury being treated,” Hassinger said. “Each Pro-Stride kit produces about 3cc of final product. This is plenty for smaller joints like coffins and for injection into soft tissue. However, in larger joints, like stifles, multiple kits may be needed. Overall, it is priced reasonably compared to other regenerative medicines.”

Although Pro-Stride was first predominately introduced to horses on the Hunter/Jumper and Dressage circuits, Schindel now sees the product rapidly spreading across all the disciplines and even to the backyard horse-pet owners.

Owl Manor Veterinary now sells the product across the United States to veterinary clinics where it is administered.

“We are always looking for new technologies that are beneficial for the horse and their caregivers,” Schindel said.

Above all, Schindel said he gets the most satisfaction when hearing from horse owners, veterinarians and trainers who say they are benefiting from the product.

“My favorite is when we get testimonials from users who have had a horse with a career ending injury that are now competing again because of our product,” he said.

Emily Lundstrom and Too Hot To Be True are a case in point. Elliot was brought back slowly to work and about a month after his Pro-Stride injection and was able to compete at his first show of the year, even taking home a first place in Western Pleasure.

Last fall the team competed at the Appaloosa World Championship Show in Fort Worth and were named Reserve Champions of the Novice Western Pleasure.

“He is still 100 percent sound and has not had any reoccurring issues,” Lundstrom said. “I even find myself having to think about which leg his injury was in.”