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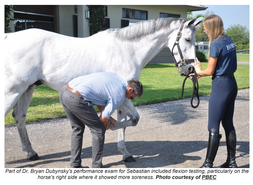
The Benefits of Biologics: Regenerative Medicine for the Equine Athlete

Featured on Horse Network

When horses are not performing up to their usual standards, regardless of discipline, the signs can be subtle.

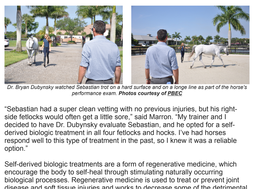
Usually, it is the rider who first picks up on a slight feeling and questions whether something is off. A horse may suddenly be lacking impulsion, be uneven in its stride, or tripping more than usual. In the jumper ring, a horse's discomfort can present itself as rails down. Riders can easily attribute these issues to their own shortcomings, but the veterinarian is able to understand if, and decide when, there may be an underlying issue. Helping equine athletes reach their full potential and maintain optimal health is the goal of sport horse medicine.



*Perf of Dr. Bryan Dubynsky's performance exam for Sebastian included flexion testing, particularly on the horse's right side where it showed more soreness. **Photo courtesy of PBEC***

Sebastian, a 13-year-old Selle Francais gelding, had garnered accolades in the jumper ring at competitions around the world. While competing at the 2021 Winter Equestrian Festival (WEF) in Wellington, Florida, his performance was waning. He was not jumping the clear rounds he had cranked out consistently through his career, knocking down rails while jumping off his right lead in particular.

Although owner Serena Marron had just purchased Sebastian in the fall of 2020, she knew that something was not right. She was aware of Sebastian's capabilities and conferred with her veterinarian, Dr. Bryan Dubynsky of Palm Beach Equine Clinic, to get to the root of his performance issue.

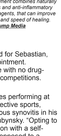


*Dr. Bryan Dubynsky watched Sebastian trot on a hard surface and on a large line as part of the horse's performance exam. **Photos courtesy of PBEC***

"Sebastian had a super clean vetting with no previous injuries, but his right-side fetlocks would often get a little sore," said Marron. "My trainer and I decided to have Dr. Dubynsky evaluate Sebastian, and he opted for a self-derived biologic treatment in all four fetlocks and hocks. I've had horses respond well to this type of treatment in the past, so I knew it was a reliable option."

Self-derived biologic treatments are a form of regenerative medicine, which encourage the body to self-heal through stimulating naturally occurring biological processes. Regenerative medicine is used to treat or prevent joint disease and soft tissue injuries and works to decrease some of the detrimental biologic processes that can inhibit or slow recovery. By promoting healing and a healthy joint environment, veterinarians are better able to support horses throughout their athletic careers.

"Biologic agents found in the horse's own blood can be harvested, concentrated, and returned to the affected area of that same horse," explained Dr. Dubynsky. "This self-derived serum combines naturally occurring growth factors and anti-inflammatory mediators, among other agents, that can improve the structure, strength, and speed of healing. In equine sports medicine, we commonly use regenerative therapies to treat musculoskeletal injuries and as a preventative therapy to proactively preserve joint health."



*Self-derived biologic treatments combine naturally occurring growth factors and anti-inflammatory mediators, among other agents, that can improve the structure, strength, and speed of healing. **Photo by Jump Media***

Some regenerative therapies, like the biologic treatment used for Sebastian, can be prepared stall-side and administered during one appointment. Autologous (self-derived) serums are natural and steroid-free with no drug-withholding times for horses competing in FEI or recognized competitions.

*Sebastian showed significant improvement after the treatment and went on to jump in FEI classes with Serena Marron. **Photo by Sportfit***

"As with many horses performing at the top of their respective sports, Sebastian had obvious synovitis in his joints," noted Dr. Dubynsky. "Opting to treat this inflammation with a self-derived biologic as opposed to a corticosteroid promotes better long-term joint health instead of a quick fix."

After the injections, Sebastian was given a couple of weeks off from jumping to let the regenerative treatment do its job. Upon returning to full work, the difference in Sebastian was very apparent to Marron.

"I could tell the treatment worked right off the bat," said Marron. "I could feel a difference in his body by the way he propelled off the ground and how he felt in training the day after a big class. He felt all around more balanced and even on each lead, which was a noticeable improvement."

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Meet the Team: Dr. Bryan Dubynsky

Sport Horse Medicine

Dr. Bryan Dubynsky focuses on sport horse medicine and lameness, and has been the Official FEI Veterinarian for several high-profile jumping competitions, including the Hampton Classic Horse Show. He is currently serving clients from his summer base in North Salem, NY.

Photo by Jump Media

What is your specialty as a veterinarian?

My main focus and interest is sport horse medicine. I love improving athletic performance and treating sports-related injuries to help clients get their equine partners back to the top.

What do you love most about your job?

I love working at Palm Beach Equine Clinic for the exceptional medical and surgical capabilities and experiences available. I also value the camaraderie of all the employees; we really work as a team, which is paramount for making the clinic successful. I appreciate the opportunities to travel throughout North America and Europe to see really cool places through work with clients.

I also love working with the competition horses and being a part of the atmosphere of high-level competition, as well as caring for the sweet trail horses at home.

Tell us about an interesting case you've worked on.

My own horse, Batman, was an abandoned polo pony suffering from West Nile Virus. He was paralyzed for three days and no one wanted to treat him. We treated him with intensive care for three days and used a tractor as a last-ditch effort to get him to stand. He has since made a full recovery and returned to playing polo.

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PBEC in the News

Veterinary Medical Manipulation and Acupuncture

Practical Horseman

Photo by Jump Media

Veterinary medical manipulation and acupuncture are two alternatives to standard medical treatments. Medical manipulation, similar to chiropractic in humans, and acupuncture therapies are complementary treatments for lameness problems and other issues in horses.

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Mark Your Calendar for Dr. Novoa's Podcast Appearance

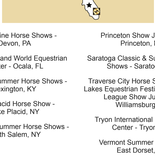
Horses in the Morning

Want to know more about alternative medicine? On June 30, Dr. Natalia Novoa of Palm Beach Equine Clinic will be joining the "Horses in the Morning" podcast to discuss her expertise in alternative therapies, primarily veterinary medical manipulation. You can listen on the podcast's website or wherever you get your podcasts.

Tune In

Where Are the Palm Beach Equine Clinic Veterinarians?

Several of our veterinarians have hit the road, offering their services across the United States. Satellite veterinary services can be found throughout the summer in the areas and at the competitions listed below.



Brandywine Horse Shows - Devon, PA

HITS Ocala and World Equestrian Center - Ocala, FL

Kentucky Summer Horse Shows - Lexington, KY

Lake Placid Horse Show - Lake Placid, NY

Old Salem Summer Horse Shows - North Salem, NY

Princeton Show Jumping - Princeton, NJ

Saratoga Classic & Summer Horse Shows - Saratoga, NY

Traverse City Horse Shows, Great Lakes Equestrian Festival, and Major League Show Jumping - Williamsburg, MI

Tryon International Equestrian Center - Tryon, NC

Vermont Summer Festival - East Dorset, VT

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