

What is Novobrace?

Our patented technology, Novobrace serves as an internal brace when it is injected directly into an injured tendon or ligament. The crosslinking agent in Novobrace immediately adds mechanical support to the injury, prevents further propagation of the lesion, provides stronger healing and results in the horse returning to full activity significantly faster.

How important are crosslinks?

During the normal healing of tendons and ligaments, crosslinks (which provide the ultimate strength to these load bearing tissues) are the last to develop and can take up to a year to form.

What else does crosslinking therapy do?

Crosslinking therapy bolsters the strength of other connective tissues in the vicinity of the injury by supporting and minimizing re-injury during the healing process.

When is the ideal time to use Novobrace following soft tissue injury?

Once the acute inflammation has decreased, Novobrace should be injected 48-72 hours following injury. Depending on the case, Novobrace can be injected as early as 24-48 hours and as late as a year after injury. If the lesion has been filled in with scar tissue, it may not be the best candidate for Novobrace.

What is the procedure for treating tendon injuries with Novobrace?

- Inject horse with a weight appropriate dose of sedative.
- Place a regional anesthesia block in the limb in order to desensitize the injection area.
- Aseptically prepare injection site.
- Using a sterile syringe and needle, remove 2.0 ml of buffered carrier solution in Vial 2 and inject into Vial 1, allowing syringe pressure to equalize. Vial 2 must be at least room temperature (between 65° F and 85° F) prior to mixing.
- Shake vigorously to dissolve Novobrace reagent.
- Using ultrasound guidance, place a 25g 1 ½ inch needle into lesion.
- Attach syringe containing reconstituted solution to needle and inject 0.2 to 0.3 ml into lesion and the same amount 3-4 cm proximal and 3-4 cm distal to the injury.

How soon must Novobrace be used once reconstituted?

Since Novobrace starts to polymerize once it is reconstituted, it must be used within an hour.

What is the volume of the reconstituted Novobrace?

The total volume is 2 ml which is more than enough to treat two legs on the same horse, or two horses. Since Novobrace must be used within an hour after reconstitution, if you have two horses to treat, both should be aseptically prepared at the same time.

What after care is recommended?

After injection, it is recommended to apply a sterile bandage over the injection site and limb, replacing it daily for three days. A standing or stable non-sterile bandage may be used following this initial period. An appropriate dose of NSAIDs may be given to the horse for 3-5 days.

How quickly does Novobrace work?

The Novobrace therapeutic effect begins within 30 minutes of application and is complete within 24 hours, allowing the horse to benefit from the stabilized tissue almost immediately. Novobrace significantly reduces the cost of treatment by reducing recovery time and increasing the likelihood of full recovery and return to activity when used either as a stand-alone or as an adjunct to other therapies.

What may be expected with Novobrace?

Novobrace has minimal adverse events and low toxicity. In general, make sure the volume of Novobrace is no more than 0.2 – 0.3 ml ml into the lesion and that no product leaks as the needle is withdrawn. It should be expected that using Novobrace will increase the size of the repaired connective tissue to some degree. Severe inflammatory reactions rarely occur, the most common being a cellulitis within 6-12 hours. Treat the horse with NSAIDs, regional perfusion, and sweat the leg with DMSO and furacin. Or apply a poultice with Panolog or diclofenac (Voltaren gel). Ice may help too. Lighter color horses may be more sensitive, so a regional perfusion is recommended after administration of Novobrace.

Can Novobrace be used with other cellular therapies?

Novobrace may be used as a stand-alone therapy and also as an adjunct therapy with other cellular therapies including stem cells, PRP, IRAP, bone marrow, gene therapy, cytokines and other growth factors. Unlike many other treatments, Novobrace does not depend on a biological response or the horse's immune system for efficacy and can reduce the recovery time for the horse. Novobrace also does not require a long period of injury protection to facilitate the necessary repairs. It is recommended to wait about 10 to 14 days after Novobrace to use stem cells or PRP. And it is recommended to wait about 30 days after Novobrace to use laser or shockwave therapy.

What is the recommended rehabilitation schedule after injection with Novobrace?

The rehabilitation schedule depends on the extent and severity of the injury. In general, gradual rehabilitation over 13 months is recommended for stem cell, PRP, shockwave (without Novobrace) as published by UC Davis. For injuries that are treated with Novobrace with or without other therapies, the recommended rehabilitation schedule is:

- Month 1 Stall rest, walk out to graze for 5-7 minutes
- Months 1-3 Small pen turnout, hand walking
- Months 3-4 Small paddock turnout, walk/trot under saddle
- Month 5 Small paddock turnout, walk/trot/cantor under saddle
- Month 6 Small paddock turnout, walk/trot/cantor/gallop under saddle, low jumping
- Month 7 Full turnout, walk/trot/cantor/gallop under saddle, moderate jumping, and <5 min breezing
- Month 8 Full turnout, full work

How many times is Novobrace used on the injury?

Novobrace is used only once on a particular injury.

What research and experience supports the use of Novobrace?

Over 250 horses have been successfully injected with Novobrace and about 88% of those horses have returned to the full activity prior to the injury. Numerous articles have been published about the technology of Genipin, the crosslinking agent. Several studies have been performed on equine tendons, both in vitro and in vivo. The efficacy of Novobrace use has been demonstrated with minimal adverse events.

How can I find more information on the use of Novobrace?

We encourage you to call us at 800-236-6180 for technical consultation. In addition, we have equine specialists available to answer questions on specific cases. Please watch the videos on this website to learn how the product forms crosslinking and how to prepare and use it.

How can I purchase Novobrace?

You may call us at 800-236-6180 to purchase direct or purchase through your distributor. Currently, MWI and Patterson Veterinary include Novobrace in their product listings. Novobrace is sold to licensed veterinarians.