

Platelet-Rich Plasma (PRP) Therapy: An Exciting Treatment Option for Tendon & Ligament Injuries in the Horse

By Dr. Melissa A. Holcomb, DVM, MPH

Platelet-Rich Plasma (PRP) therapy offers a safe, fast and easy solution for increasing the speed of healing in tendon and ligament injuries, wounds and even arthritis. It can be used in acute, chronic and non-healing wounds and injuries. PRP has been used for years in human medicine with great success.

Platelet-Rich Plasma is defined as plasma that has at least four times the concentration of platelets that whole blood has. Platelets are a normal component of your horse's blood that help his blood to clot when he gets a wound. Platelets also have other functions, however, including: regulating inflammation, promoting tissue repair, influencing formation of new cells, stimulating vessel formation, reducing scar tissue formation and providing an analgesic (pain-relieving) effect. Platelets contain growth factors that are activated when concentrated in an area of damaged tissue and can significantly speed healing. There are several growth factors contained in platelets including: Platelet-Derived Growth Factor (PDGF), Transforming Growth Factor- β (TGF- β) and Vascular Endothelial Growth Factor (VEGF).

To obtain Platelet-Rich Plasma, 50-60ml of your horse's blood is drawn in a

syringe and mixed with an anti-coagulant to prevent clotting. This blood is then centrifuged to concentrate the platelets. These platelets are then collected and injected into the injured tendon, ligament or wound. Each 50-60ml collection of



blood yields about 4-8ml of Platelet-Rich Plasma. The entire preparation procedure is very fast and your horse's PRP is ready in about 20 minutes!

If you are interested in Platelet-Rich Plasma as a possible treatment option for your horse, schedule an appointment with your veterinarian. A lameness exam and/or physical exam will first be performed on your horse and if the lesion is a tendon or ligament injury, it must be diagnosed and located via ultrasound. Injection of PRP should take place at least 7-30 days

after the initial tendon or ligament injury occurred. Your horse will be sedated and the area to be injected with PRP will be numbed with a local anesthetic. The area will be scrubbed to disinfect it and 2-4ml of PRP will be injected with ultrasound guidance in several locations in the vicinity of the lesion. The remainder of the PRP will be frozen to potentially be used again in 30 days, although, in most cases a single injection of PRP is adequate to stimulate and accelerate healing. The leg will need to be bandaged for 24-72 hours depending on the injury and your veterinarian's advice. For 2 weeks following injection with PRP, your horse will need to be stall rested with hand-walking. The injured tendon or ligament should be re-ultrasounded 30 days after the initial injection with PRP to determine if a second injection is necessary. Your horse will then begin a slow return to work as the lesion/soundness allows.

Abraham's Equine Clinic in Cedar Rapids, IA now offers PRP as a treatment option for your horse. If you are interested in Platelet-Rich Plasma and would like more information or would like to schedule an appointment to have your horse evaluated for PRP treatment, please contact our clinic at 319-366-6441.

About Dr. Holcomb:

*Melissa A. Holcomb, DVM,
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