



info@tryonequine.com  
www.tryonequine.com

P.O. Box 547 / 155B Shuford Road  
Columbus, NC 28722

Office (828) 894-6065  
Fax (828) 894-6302

## What is platelet-rich plasma (PRP)?

Platelet-rich plasma is obtained from the patient's own blood and processed the same day. The blood is spun or filtered using special kits to concentrate the portion of the blood (plasma) that contains the most platelets (platelet rich). Platelets are cellular fragments that are responsible for helping the body form a blood clot within a wound and for helping that wound heal. Within the platelets are several factors called growth factors that are important in stimulating the invasion of surrounding cells responsible for wound healing. The components of PRP vary widely depending on patient related factors and the processing method. The "perfect" recipe for PRP is yet to be determined and is multifactorial. However, we do know that it is important to concentrate your platelet number by approximately 3-5x baseline values and reduce the number of white cells within the platelet-rich plasma.

The use of PRP was first described in human medicine to augment bone healing in facial reconstruction surgery. Since then PRP has been used extensively in human sports medicine for healing of tendon and ligament injuries. In [equine sports medicine](#), PRP is primarily used to enhance the healing of tendon and/or ligament injuries when there is a "core" lesion identified or in chronic injuries that seem stagnant in the healing process. There are few controlled reports showing the benefits of PRP use in equine tendon and ligament injury. However, the benefits that have been shown include increased recruitment of cells within the lesion along with enhanced tissue formation within the core lesion of the injury. This enhanced tissue leads to a more functional scar than what would be within the tendon/ligament if it were left to heal on its own. It is important to understand that PRP is used to enhance the quality of the tissue that heals the injury, but in no way does it speed up the healing process or account for proper rest and [rehabilitation](#). There are a few drawbacks to its use. Primarily, its administration can

occasionally elicit an excessive inflammatory response that results in temporary pain and swelling at the site of injection. This is treated supportively with icing of the limb, wrapping, and anti-inflammatory administration (Bute/Banamine).

The use of PRP for joint-related injury in equine sports medicine remains controversial and currently there are no reports in the literature other than anecdotal that show its benefit within the joint. However, an increase in inflammatory mediators within the joint has been reported after intra-articular administration of activated PRP. Therefore, until more objective data is established its intra-articular use is not recommended by the doctors of Tryon Equine. However, we have found that PRP can be a beneficial adjunctive treatment for tendon and ligament injuries.

**Answered By: [Lindsey Boone, DVM, PhD](#)**