

BloodCure

Information about Regenerative Medicine, Stem Cells, Platelet Rich Plasma and Sports Medicine

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Hamstring Injuries Treated with Platelet Rich Plasma Return to Play Faster than Rehab Alone



Hamstring muscle injuries are very common in a variety of sports including track, soccer, football and basketball. A recently published study in the American Journal of Sports Medicine (AJSM) found athletes that were treated with platelet rich plasma (PRP) injections returned faster to their sport when compared to rehabilitation alone. In the study, the PRP patients returned at an average of 26.7 days compared to 42.5 days in the control group ($P = .02$). ([reference](#)) This greater than two week difference in time to return to play after this common injury is clinically and competitively important.

Another recently published in the New England Journal of Medicine (NEJM) found no difference between PRP injections (2 injections spaced about a week apart) and a control group. Interestingly, both groups in this study returned to play at 42 days, very similar to the control group in the AJSM study. ([reference](#))

Why are these results conflicting?

One important difference between the two studies is the type of PRP used to treat the patients. In the study that did show a difference, white blood cell enriched PRP (leukocyte enriched PRP) was used. In the study that did not show a difference, white blood cell poor PRP (leukocyte poor PRP) was used. This is a clear example of why PRP formulation matters.

The data published in elite, peer reviewed journals suggests leukocyte enriched PRP helps return athletes more than two weeks faster than rehabilitation alone after an acute hamstring injury. No difference in return to play can be expected if leukocyte poor PRP is used in this patient population.

As PRP and other cell therapies continue to evolve, it will become increasingly clear that formulations much match indication. Patients, researchers, and clinicians need to realize not all PRP is the same.