

Enhanced plasma shortens time off for injured athletes

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(PhysOrg.com) -- Injured athletes who have their own enriched plasma injected into their bodies are healing faster and spending less time on the bench or on the disabled list.

Platelet rich plasma (PRP) injections involve taking some of the patient's blood and putting it into a centrifuge that spins at high speed and separates and concentrates the platelets. The platelets contain the proteins and other particles involved in the self-healing process. Doctors then inject this platelet concentrate into the patient and the high concentration of platelets accelerates the growth of new soft-tissue to heal the damage.

“PRP injections don't decrease the severity of the injury, but they do speed up the [healing process](#),” said Dr. David Lintner, an [orthopedic surgeon](#) with The Methodist Center for [Sports Medicine](#) in Houston. “If you have an athlete whose hamstring injury was going to take two weeks to heal, PRP injections might not knock that down to less than a week. A four week injury might only be one-two weeks,”

The hope is that this treatment, which marries technology and the body's natural healing properties, will eliminate the need for surgery or other treatments such as cortisone injections. PRP injections work best when given within 24 to 48 hours after the injury occurs and can be done in the doctor's office if they have the necessary equipment.

“This therapy has worked for players with sprained ligaments in the

pitcher's elbow, flexor tendons in the elbow, and hamstring injuries as well as sprained [ligaments](#) in the [knee](#), but it can be used to treat many other [orthopedic injuries](#)" said Lintner, who is also the head team physician for the Houston Astros and team physician for the Houston Texans. "It only works on tissue that has the chance to heal to accelerate that healing. But if a tissue has no chance to heal, like an anterior cruciate ligament (ACL) tear or rotator cuff tear, the PRP won't cure that."

Lintner believes the next frontier for this type of therapy could be looking at ways to chemically-manipulate the platelets to see if they produce an even better result, and perhaps synthesize the healing factors directly.

"We've just begun to scratch the surface with this type of treatment," Lintner said. "Any time you can keep athletes out of the operating room and off an extended stay on the disabled list it's definitely a positive. So far PRP injections have been able to do that in a number of cases at the professional level as well as for the average person who wants to heal faster."

Provided by Methodist Hospital System

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