

PLATELET-RICH PLASMA (PRP)

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What is it?

“Platelet-rich plasma” (“PRP”) is a term used to describe the blood products with an increased concentration of platelets. “Platelets” contain growth factors, and injecting PRP into injured or non-healing tissue is believed to possibly enhance or speed up healing. PRP is becoming more commonly used to treat some sports medicine injuries. Treatment with PRP begins by taking a patient’s blood through a needle stick in the arm. This blood is placed into a machine, then spun down to concentrate the platelets. There are several different types of machines that create slightly different concentrations of platelets and other blood cells. A sports medicine doctor will determine the best contents of the injection based off what is known to possibly help, his/her preference, and the patient’s injury/condition.

Why is it used?

PRP may be used for a variety of conditions. It can be used to possibly help with ongoing pain and dysfunction related to tendon conditions or injuries. Chronic tendon injuries are not due to inflammation, but are instead related to wear and tear. Commonly treated areas include the patellar tendon (“jumper’s knee”), the lateral epicondyle (“tennis elbow”), and the Achilles tendon. PRP may also be used in acute strains or muscle tears, such as at the calf, “quads”, or hamstring. It may also be used at sites of soft tissue rupture, such as the plantar fascia. Many doctors also advocate the use of PRP for arthritis and other degenerative joint conditions.



Does it work?

Because the use of PRP is still relatively new, research studies are still ongoing. At this point, most studies are relatively small, and the overall benefit of this treatment is still being determined.



Many insurance companies consider treatment with PRP as experimental, and will not pay for the procedure. If a doctor feels that PRP may be useful to treat a patient’s condition, payment out of pocket may be necessary.

Sports Medicine Evaluation

Evaluation prior to use of PRP will be similar to a usual clinic visit, with a typical history and physical exam. A sports medicine physician may use ultrasound to aid in the diagnosis. Ultrasound will also typically be used during the procedure to guide the injection. Very rarely, laboratory testing will be required before the procedure to ensure that the patient has normal blood cell counts even before the procedure. Occasionally, some patients may experience a brief flare up of their pain for several days after the injection. It is usually recommended to avoid oral anti-inflammatory medications like ibuprofen or naproxen for a few days before and several weeks after the procedure, but ice and acetaminophen can be used.

Return to Play

The return-to-activity timeline can vary depending on the reason why PRP was performed. Large muscle tears may require several weeks to fully heal, regardless of the procedure, while other indications may benefit from early focused therapy after a short period of rest. Chronic tendon injuries will typically take at least 3 – 6 months to heal. Most physicians will recommend some specific period of complete rest – and often immobilization – following the injection. The physician will usually make the decision on return to sports based on repeat exams, and possibly, repeat ultrasounds.

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Reference

Andia I, Latorre PM, Gomez MC, Burgos-Alonso N, Abate M, Maffulli N. Platelet-rich plasma in the conservative treatment of painful tendinopathy: a systematic review and meta-analysis of controlled studies. *Br Med Bull.* 2014 Jun;110(1):99-115