

Platelet Rich Plasma (PRP) Injection - Information and Instructions for Patients
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Background on PRP

PRP is derived from your own blood by taking a sample of venous blood, placing it in a special tube, and spinning the blood in a centrifuge. This separates your blood into different components. PRP contains a high concentration of platelets, the cells that normally promote blood clotting and are critical to healing. These cells also contain a number of specialized chemicals called growth factors. These include platelet derived growth factor, transforming growth factor beta, and vascular endothelial growth factor. These factors interact with the local cells and send signals that initiate a variety of events such as cell division and migration. The basic idea behind PRP injection is to deliver high concentrations of growth factors to an area of injury, with the hope of stimulating growth of healthy tissue.

PRP has been used since about 1987 to help promote healing in dental, orthopedic, and plastic surgery procedures. PRP has been recognized for its potential in treating both chronic and acute musculoskeletal injuries involving tendons, ligaments, and muscles. This procedure is gaining wide media attention as it has been used in professional athletes in attempts to return them to competition as soon as possible.

Potential Benefits and Risks

Most PRP injections are being done in areas of tendon degeneration or tendinopathy or for knee osteoarthritis. Examples include the Achilles tendon, elbow tendons, rotator cuff, and hamstring tendons. **Overall, PRP is a reasonable alternative for you when compared with the options - cortisone injection, surgery, or no treatment except oral medications and physical therapy; the potential benefits appear to outweigh the risks.**

Because PRP is derived from your own blood ("autologous" transplantation), there is NO chance of having an allergy or immune reaction. Side effects or complications of PRP injection are extremely rare. The main risks include **local infection** (<1% chance) and **pain** at the site of injection. Injection of non-buffered PRP (which is acidic) tends to be very painful, thus we add a small amount of sodium bicarbonate to the solution to neutralize the pH, which seems to alleviate much of the pain associated with injection.

Pre-procedure Planning, and What to Expect During the Procedure

You should **stop taking any non-steroidal anti-inflammatory medications** 7 days before the procedure, and should not take these medications again for 7 days after the procedure. Common examples of these medications include ibuprofen, naproxyn, and indomethacin or as well as aspirin. Non-steroidal medications work by blocking the action of some of the growth factors present in PRP, thus may render the injection ineffective. You may use acetaminophen (Tylenol) before or after the procedure.

The following steps will occur on the day of the injection:

Venous blood (8cc) will be drawn from your arm.

The sample will be placed in a centrifuge.

The platelet rich plasma will be extracted from the tube and injected directly to the site.

What to Do and What NOT to Do after the Procedure

You may ice the area for 20 minutes every 2-3 hours for the first 24-48 hours after the procedure.

Activity Level and Followup

For the day of the procedure and the day after, limit the activity related to the injection site to activities of daily living. You may drive.

For the first 2 weeks, pay extra attention to the area. It is ok to exercise lightly and that is even encouraged. You may feel more pain and have more swelling especially during the first 2 weeks.

It is expected that it will take up to 6-8 weeks to adequately assess your response to the therapy.

Will My Insurance Pay for PRP?

Currently, PRP is not paid for by insurance. The fee of \$800 covers the cost of the materials, the office visit, and the performance of the injection.

Further Reading

<https://orthoinfo.org/en/search/?q=prp>

Results of preliminary scientific studies and review articles are also available, listed here.

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Sampson S, Gerhardt M, Mandelbaum, B "Platelet rich plasma injection grafts for musculoskeletal injuries: a review" *Curr Rev Musculoskelet Med* **1**:165-174, 2008.

Mishra A, Woodall J, Vieira A "Treatment of tendon and muscle using platelet-rich plasma". *Clinics in Sports Medicine* **28** (1): 113-25, 2009.

