

**Introduction**

**Platelet-Rich Plasma (PRP)** therapy, sometimes called Autologous Conditioned Plasma (ACP) therapy, attempts to take advantage of natural healing properties of blood to repair damaged cartilage, tendons, ligaments, muscles, or even bone. A growing number of people are turning to PRP injections to treat an expanding list of orthopedic conditions. It is most commonly used for knee osteoarthritis, but may be used on other joints as well. Therapeutic knee injections can reduce painful symptoms related to knee osteoarthritis. Injections are often used in conjunction with other nonsurgical treatments such as physiotherapy, bracing or medications. Ultrasound may be used to help guide placement of an injection.

**The Procedure**

1. Blood is drawn from a vein in the patient's arm into a syringe (15-60 ml, or 0.5-2.0 oz, or more).
2. The blood is processed using a centrifuge. A doctor or technician prepares the centrifuged PRP for injection.
3. The affected joint area is cleansed with disinfectant such as alcohol or iodine.
4. A local anesthetic (such as lidocaine) may be used to numb the injection site. However, some experts believe that anesthetics decrease the effectiveness of PRP.
5. For ultrasound-guided injection, an ultrasound probe will be pressed against the gel-covered skin near the injection site to show up live image of the structure inside the joint.
6. The patient is asked to relax. This will facilitate the injection and make the injection less painful.
7. Doctor injects a small amount (3-6 ml) of PRP into the affected tendon.
8. The injection area is cleansed and bandaged.

**Preoperative Preparation**

1. Admit 1 day before or on same day of this "elective" operation.
2. Anaesthetic assessment. Inform your doctors about drug allergy, regular medications or other medical conditions.
3. Keep fast for 6 to 8 hours before operation.
4. Empty bladder and change to operation clothes before transfer to operating room.
5. Pre-medication, antibiotic prophylaxis and intravenous line may be required.

**Postoperative Instruction****General**

1. Mild discomfort or pain over the injection site. Inform nurse or doctor if pain severe.
2. Inform nurses if more analgesics are required.
3. Can mobilize and get out of bed 6 hours after operation.
4. Usually go home on day after the operation.

**Wound care**

In the first day after operation, patients can have shower with caution (keep wound dressing dry).

**Diet**

Resume diet, usually 4 hours after anaesthesia, and when taking sips of water well.

**Common Risks and Complications** (not all possible complications are listed)**Anesthesia related**

1. Cardiovascular: myocardial infarction or ischaemia, stroke, deep vein thrombosis, pulmonary embolism, etc.
2. Respiratory: atelectasis, pneumonia, asthmatic attack, exacerbation of chronic obstructive airway disease.
3. Allergic reaction and shock.
4. Toxicity of local anaesthetic injected around the site of operation may result in serious complication although rare.

**Procedure related**

Due to tendon and ligament injury, wounds, fractures, bone cysts, and osteoarthritis. Irritation, pain, or bleeding related to the injection site.

**Things to take note after discharge**

PRP (may cause temporary inflammation, pain, and swelling. Take it easy for a few days and

1. Avoid putting strain on the affected joint.
2. Avoid anti-inflammatory pain medication; the doctor may prescribe or recommend another pain medication.
3. Use crutches, wear a brace, and/or wear a sling to protect and immobilize the affected joint.
4. Apply a cold compress a few times a day for 10 to 20 minutes a time to help decrease pain and swelling. (Some doctors may recommend a warm compress.)

**Remarks**

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information please contact your doctor. Evangel Hospital reserves the right to amend this leaflet without prior notice. We welcome suggestions or enquiries on the information provided in this leaflet. Please contact our Healthcare professionals so that we could follow up and make improvement.

**Reference**

Medical News Today: "What you need to know about PRP" (2021) <https://www.medicalnewstoday.com/articles/320107.php> (13-07-2023)