

Pure Sports Medicine

What is a PRP Injection?

Platelet-rich Plasma (PRP) injections are a type of orthobiologic therapy that involve taking a patient's own blood and concentrating the levels of platelets and growth factors to promote healing in injured musculoskeletal tissue.

This treatment has now been in use for over a decade and has gained popularity due to media coverage of its use in high profile athletes with injuries. These athletes are reported to include: Tiger Woods, Rafael Nadal, Kobe Bryant, Alex Rodriguez and Jermaine Defoe. Its use in elite sports waxes and wanes. It was removed from the list of prohibited substances in 2011 by the World Anti-doping Association (WADA) and the UK Anti-doping Association (UKAD).

PRP Injections are considered for soft tissues injuries traditionally known to have poor healing properties (e.g. tendon and ligament injuries) where the healing process may have 'stalled'. Some research studies have demonstrated positive results, other studies not so. The evidence base on this treatment is growing and PRP appears to be helpful only in some conditions. The associated dryneedling of the injured tissue which is performed with the PRP injection may also contribute positively to its outcome. The injections are carried out under strict sterile conditions.

PRP is not generally considered to have any major harmful effects, because apart from a patient's own (autologous) blood, no other constituents are added to the injection. For that reason, it is appealing to patients who want more of a 'natural approach' to dealing with their injuries. It is often also considered an option by patients who have trialled various other treatments unsuccessfully for their longstanding injuries but wish to avoid having surgery.

Injuries that can be targeted with PRP:

- Tennis elbow (Common extensor origin tendinopathy)
- Golfer's elbow (Common flexor origin tendinopathy)
- Early osteoarthritis
- Chronic muscle injuries (e.g. Gastrocnemius and soleus muscle tears)
- Chronic ligament injuries (Knees, ankles, elbows and wrist)
- Chondral injuries (injuries involving the articular cartilage overlying all joints)

What is involved?

An initial clinic consultation and imaging (e.g. MRI/ CT/ X-rays/ Diagnostic ultrasound scan) is required to ensure the diagnosis is correct and other similar conditions have been ruled out. A discussion on the suitability of PRP for the condition is also undertaken.

If a condition is deemed to be suitable for PRP treatment, your doctor will explain the procedure, risks and aftercare involved to ensure you are fully aware of the treatment process. You should use this opportunity to ask any questions you may have about the treatment.



Blood is obtained by the process of venesection, similar to a routine blood test. This is stored in a sterile syringe to prevent infection and contamination. A process of centrifugation is then undertaken which involves a machine spinning down blood into its constituent parts. The plasma-rich layer is then extracted and injected back into the same patient under sterile conditions.

A series of injections are usually required. Ultrasound guidance is used for accuracy to ensure the injection reaches its intended target. Injections are carried out under strict aseptic conditions to ensure the risk of infection is minimised.

As a rough guide, the gap between each injection is several weeks to allow the tissue to heal. The number of injections needed varies according to individual circumstances and need.

If you are felt to have improved sufficiently, then further injections will not be offered for the sake of it. This procedure works better if coupled with a comprehensive rehabilitation programme. For that reason, you will be asked to follow up with your physiotherapist within days of having the injection- this is to encourage functional tissue healing, whereby the injured tissue regains its tensile strength and flexibility, allowing you to return to a good level of function.