

# Platelet Rich Plasma Injections (PRP)

## Summary

PRP has been around for a couple of decades but is relatively new to sports medicine. Traditional drug treatments for many conditions have been under review as they tend to only mask the pain rather than promote tissue healing. PRP has recently been popularised since its use by some very famous athletes including Kobe Bryant, Tiger Woods, Rafael Nadal and many others. PRP comes directly from your blood. The process starts with a small amount of your blood being spun in a centrifuge. This separates your blood into its various constituents - red cells on the bottom, plasma on the top, and platelets in the middle i.e. on top of the red blood cell layer. At Sports Clinic NQ the PRP is injected under ultrasound guidance to improve injection accuracy. See figure 1 which illustrates the constituents that make up our blood. It is the platelets in the middle which is drawn off and re injected into the injury.

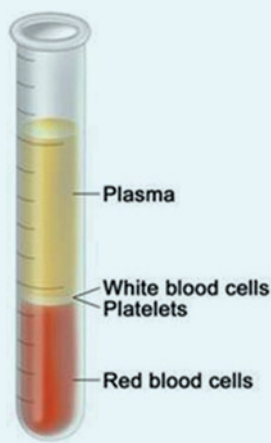
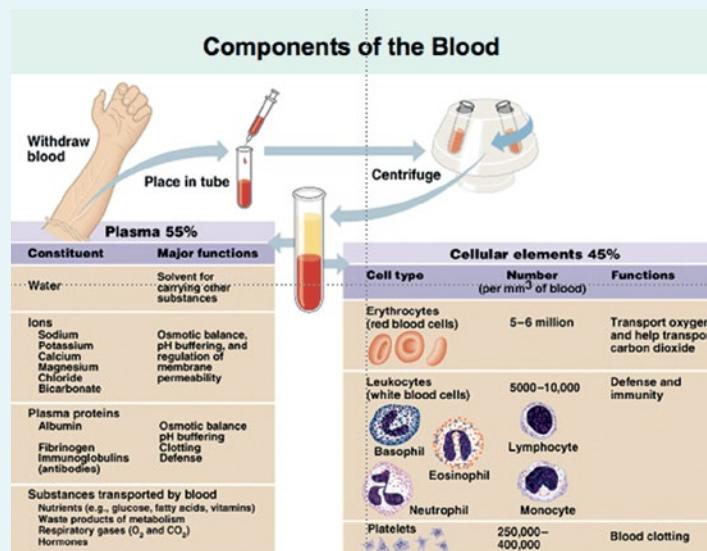


Figure 1



## Why is it used?

Platelets contain growth factors essential for soft tissue healing and repair. When tissue becomes injured, platelets are responsible for clotting the blood to stop bleeding. Therefore platelets are perfectly positioned to release the growth factors to aid in the healing process. After an injury occurs and the initial healing processes subsides, PRP administered into the site of the injury can replicate the environment of healing and allow further tissue repair to occur.

## What is the evidence? What is the process?

There are now a large number of small studies regarding PRP. Most of these studies have quite positive results but poor methodology makes a determination regarding the efficacy of PRP difficult. Larger studies are required and PRP should still be considered experimental. Anecdotally the results in the clinic have been quite positive.

Blood is removed from a vein in the arm. The blood is then spun down in a centrifuge. This separates the red cells from the plasma. The most platelet and protein concentrated plasma is then removed and injected under ultrasound guidance into the target tissue. This ensures that needle placement is accurate.

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## What are the risks?

**Pain:** The injection can be quite painful depending on the site of the injection and severity of the injury. Some people describe the pain as very intense whereas others find it only mildly uncomfortable.

**Infection:** There is a risk of infection although it is very rare.

### Pre-intervention advice

Ensuring you are well hydrated on the day of the injection is important. This will also ensure that removal of blood from your vein occurs effortlessly which is in the best interests of yourself and those undertaking this part of the process. Ideally having a shower shortly before attending the clinic may assist in reducing any likelihood of infection and is also recommended.

### Post-intervention advice

PRP can take time to take effect. This is a treatment aiming at long term improvement. There may be little noticeable improvement in the first month. It is not uncommon to have a relatively severe flare of symptoms lasting a day or two. It is advisable to avoid strenuous activity for the 48 hours following each treatment. If you experience a severe flare of symptoms it is safe to take Panadol or Panadeine. It is strongly recommended that you discuss further with your doctor if you are taking any other medication or are aware of any reason why the use of such pain relief may have an adverse effect on you. Avoiding anti-inflammatory medications is also strongly recommended. The use of such drugs e.g. nurofen / ibuprofen, voltaren and other anti-inflammatory medications may counteract some of the effect and benefits of the PRP injection.



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