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Platelet Rich Plasma (PRP)

What is Platelet-Rich Plasma?

Platelet rich plasma is a blood product, drawn from your body, which has a high concentration of platelets that produce growth factors. These growth factors are thought to have a beneficial effect in tissue healing.

What is the evidence?

At this time there are only a few studies of adequate quality that show that PRP is effective for early knee arthritis, however, there is more evidence than for arthroscopic surgery of the knee. Good quality studies comparing it to Hyaluronic acid (see handout) for arthritis of the knee have consistently showed it is superior. However, a recent systematic review (large high quality study) published in the Clinical Journal of Sports Medicine, has recommended the use of these injections with respect to the specific patient and their preferences. At this stage there are no predictors of who will and wont respond to each of these injections, and the sensible approach seems to be to use them sparingly and cost-effectively to facilitate the rehabilitation exercises.

Compared to Cortisone injections, PRP injections don't seem to delay recovery or increase recurrence of injuries.
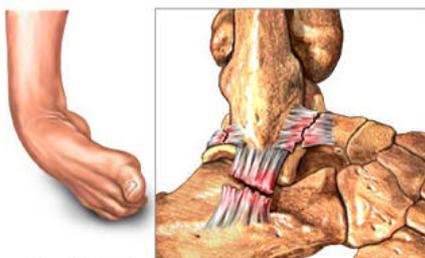
Why is it used?

PRP is used to augment the healing process, particularly in areas of the body where there is slow tissue repair and turnover.
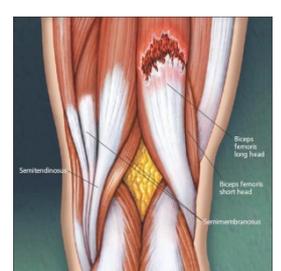
JOINTS	LIGAMENTS	TENDONS	MUSCLE

Will it work for my problem?

PRP has potential benefits for the right problem in the right patient. It is only one part of the whole management regime for any problem. There are no large-scale studies comparing PRP to placebo for most problems that it is used for. It is very safe and a temporary post-injection flare of symptoms is the most likely adverse effect.

There are currently no evidence-based guidelines for the optimal preparation and dose of PRP and further research is needed. Well-conducted studies have shown a benefit of PRP over placebo when used for early osteoarthritis of the knee.

Other specific problems that PRP *appears* to be effective for include:
- Ankle syndesmosis injuries
- Slow healing muscle injuries involving the tendon (hamstring, quadriceps)
- Chronic tendon pain- patella tendon and gluteal tendons
- Chronic plantar fasciitis
- Early osteoarthritis of the hip

How much does it cost?

The out of pocket cost is usually significantly less than this when done by a Sports Physician. It ranges from $150-$500 depending on the type of PRP used. Sports physicians usually provide the service within the context of understanding the overall problem, and provide a holistic medical assessment and plan that complements the injection.

What are the risks?

The main risks are considered the same as any other injection. There is a 1 in 80,000 chance of infection or significant bleeding. These risks are minimised through the use of a sterile technique and an ultrasound to guide the safest course for the needle. A flare of the pain can occur but is not serious.

What should I expect?

The whole process takes between 30-45 minutes. First, about 10-15mL of your blood is drawn from your arm. Then that blood is centrifuged for 10 minutes. The PRP is then extracted, and injected under ultrasound guidance after the area is cleaned. Local anaesthetic is sometimes used but never in the same injection as the PRP as this destroys the platelets.
You should plan to rest the injected area for 1-2 days following the injection. Depending on the site of the injection, this may involve getting driven to your appointment, wearing a protective sling, boot or other device.