# Platelet Rich Fibrin (PRF) For wounds and ulcers



Platelet-rich fibrin is a relatively new technique used to accelerate the healing of ulcers in patients with compromised healing, i.e. peripheral neuropathy and/or diabetes. Platelets are rich in growth factors that initiate tissue healing.

PRF enables local and progressive delivery of growth factors providing unique properties for tissue remodelling and wound healing.

Platelet – rich fibrin is harvested similarly to PRP but is a much simpler process. Autologous blood is centrifuged for a specific time and speed until a fibrin clot has formed. The fibrin matrix is then prepared and applied directly to the ulcer and dressed using sterile technique.

### About

All procedures are performed by Craig Wanless, a musculoskeletal and sports podiatrist. Craig has a special interest in treating chronic musculoskeletal lower limb pain. He has a degree in podiatry, is an accredited member of the Aust. Podiatry Association and the Aust. Assoc. of Musculoskeletal medicine. He has done extensive post-graduate training in prolotherapy, neural prolotherapy, Platelet-Rich Plasma harvesting and technique, foot, ankle and knee injection techniques and venepuncture.

Craig has the unique potential to combine his lower limb biomechanical knowledge with both PRP and prolotherapy. Treatment plans will often initially compromise of removing biomechanical musculoskeletal overloading with exercise programs, footwear advice, strapping or customised orthotics. Once causes of mechanical stress are removed, then PRP or prolotherapy are considered more potent as treatment options.



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Platelet-Rich Plasma (PRP)

for Chronic Joint, Tendon and Ligament Pain

Platelet-Rich Fibrin (PRF)



"Combining cutting-edge science with the natural ability of the body to heal itself"

## What is PRP?

Platelet-Rich Plasma is obtained from the patient's own blood. Platelets are separated and then concentrated and then injected into an injured body part. Platelets contain many growth factors that can accelerate the healing of tendons and ligaments and is thought to stimulate synovial fluid production in joints.

## Conditions Treated

PRP can be beneficial to initiate healing with chronic joint, tendon and ligament pain that have been unresponsive to previous treatment. Common conditions successfully treated in the clinic include:

- · Joint pain and osteoarthritis of foot, ankle and knee
- · Chronic tendon injury
- · Ligament, fascia and soft tissue injury

PRP therapy is just a single part of an optimal treatment protocol for tendinopathies, fasciitis and osteoarthritis. It is best combined with an individually designed gradual exercise program and correction of predisposing factors.



## The Procedure

Typically up to 72ml of blood is taken from your arm as would be done when having blood tests performed. The blood tubes are then immediately spun in a centrifuge in two stages. The two stage process results in a high concentration of platelets and leucocytes (white blood cells).

All platelet harvesting is performed in a class II biosafety cabinet which produces a sterile environment for added safety.

Local anaesthetic and pain relieving sprays are used to keep patient discomfort to a minimum.

Once the platelet concentrate has been collected it is then prepared for injection into the injured area. The injection procedure is performed using strict sterile technique.

# Pre - PRP

- If possible avoid anti-inflammatory medication for 48hrs
- · No fever/illness for two weeks
- · No steroids for four weeks

Treatment effectiveness may be reduced with patients unable to stop taking blood thinners (Plavix, aspirin, Warfarin, Iscover).

### Post - PRP

- Use panadol and ice for pain control if required
- If possible no anti-inflammatory medication for two weeks
- · Rest from strenuous exercise for a week
- · Normal active daily duties are fine
- A specific exercise program may need to commence 2 weeks following the injection



### Risks

The potential risks involved with this procedure are very minimal, but they include:

- · Blood vessel or nerve damage from needle
- · Acute injection flare-up or synovitis
- · Very low risk of infection
- Localised bruising and soreness at needle entry points

# Patients Not Suitable for PRP

- · Patients with blood and circulation disorders
- · Local infection at the site of injury
- · Allergy to local anaesthetics
- · Pregnancy and breastfeeding
- Patients with metal implants close to injection site

#### Research

There is convincing recent research to support the efficacy and safety of PRP therapies. A recent study (Feb 2012) found that PRP long-term was superior to cortisone for plantar fasciitis (heel pain). There is good research showing that PRP results in a decrease in pain and an increase in function in both osteoarthritis and enthesopathies. These papers can be supplied if requested.