

## **Platelet Rich Fibrin (PRF)**

### **What is PRF?**

Blood contains red blood cells, white blood cells, plasma, stem cells and platelets. Platelets are small disc-shaped cells with a life span of about 7-10 days. Platelets contain clotting and growth factors. During the healing process, platelets are activated and collect together. They release the growth factors, thus stimulating the inflammatory cascade and healing process.

Blood typically contains 6% platelets whereas PRF has a significantly increased hyper-abundant platelet concentration. Studies have shown that clinical benefit can be obtained because PRF has an increased platelet concentration of up to 10 times greater than normal blood.

Autologous platelet rich fibrin (PRF) injections have been used for over a decade by oral surgeons, plastic surgeons and maxillofacial surgeons. When comparing Platelet Rich Fibrin (PRF) to Platelet Rich Plasma (PRP), PRF yields a superior concentration of platelets and white blood cells than PRP. Additionally, Platelet Rich Fibrin contains a concentrate of platelets that are NOT stripped of their fibrin (clot) and Mesenchymal Stem Cells, which are NOT found in PRP. Platelet Rich Plasma gives off a burst of platelets with growth factors immediately after treatment.

As opposed to this quick release in PRP treatments, Platelet Rich Fibrin forms a fibrin clot which is sustained in the tissues for several weeks after treatment. This clot gives off a slow release of growth factors and, combined with the mesenchymal stem cells and white blood cells, encourages improved collagen production, elastin production, and blood supply to the area treated. This yields an improvement in volume, texture, colour and tone of the skin.

### **What is the process?**

Preparation is simple and quick, and completed in clinic during the appointment time. Prior to treatment a small tube of blood is drawn from the patient. This blood is immediately placed in the centrifuge for about 5 minutes. When centrifugation is complete, your fibrin, rich in platelets is extracted from the top of the test tube.

The fibrin gel may be mixed with a hyaluronic acid filler or injected alone into the deep dermis or fat layer of the skin. Topical application of PRF after laser or microneedling treatments will reduce healing time and pain, and encourage healthy skin regeneration.

Platelets and stem cells gradually increase tissue blood flow and collagen production which can increase overall health of tissue.

### **What areas can be treated with injectable PRF?**

- Orbital Rim – Around the eyes
- Cheeks and Mid face
- Crepey skin on the face and neck
- Back of hands
- Décolletage

### **What are the benefits of PRF?**

- Tissue regeneration and rejuvenation
- Neo – Collagenesis
- Neo – Vascularization
- Extracellular Matrix formation
- Non allergenic
- It is a 'body own' physiological product vs. animal derived or human donor products
- Elimination of donor transmissible infections
- Biological Glue: for tissue adhesion especially in skin flaps, bone grafts and trauma.

### **Are results immediate?**

No. Immediate swelling and wound healing are obvious at first sight. However, collagen rejuvenation can take up to 6 weeks depending on the condition of your skin and lifestyle. More than one treatment will be necessary if the skin is mature.

### **How long do results last?**

As you are regenerating collagen, lasting results will depend on the care and maintenance of your skin. The collagen that you build from this treatment is what you will keep for a lifetime.

### **What can I expect after my treatment?**

Redness, swelling, or bruising can happen in the treatment area when PRF is injected. These side effects usually subside in a few days.

Side Effects Platelet rich fibrin (PRF) is prepared from autologous (patient's own) blood so there is no risk of allergies or nodules.

### **Contraindications to PRF You should not have a PRF injection if you have the following:**

- Cancer or metastatic disease
- An active infection
- A low platelet count
- Pregnant/Breastfeeding.

**BEFORE: The week before having the treatment (for best results):**

1. AVOID the use of NSAIDS (ibuprofen, Motrin, Aleve, Naproxen, Aspirin, etc.) 5 days before procedure (Tylenol is OK for pain relief right up to and including the day of procedure – do not exceed 4000mg in a 24 hour period).
2. AVOID the following nutritional supplements for 5 days before procedure, Ginko Biloba, Garlic, Vitamin E, Vitamin A, Flax Oil, Curcumin, and other anti-inflammatory nutrients.
3. AVOID the systemic use of corticosteroids for 1 week before the procedure.
4. AVOID Alcohol and Cigarettes for 5 days before the procedure.
5. HYDRATE very well for three days before and the day of the procedure for ease of blood draw.
6. If you have been sick in the month leading up to your treatment, please discuss this with your provider. Your treatment may need to be rescheduled to optimise outcomes.

**AFTER: The week(s) after the procedure (for best results):**

- Mild bruising and irritation may occur
- AVOID the use of NSAIDS (ibuprofen, Motrin, Aleve, Naproxen, Aspirin, etc.) 5 days after procedure (Paracetamol is OK for pain relief, do not exceed 4000mg in a 24 hour period).
- AVOID the following nutritional supplements for 5 days after the procedure -- Ginko Biloba, Garlic, Vitamin E, Vitamin A, Flax Oil, Curcumin and other anti-inflammatory nutrients.
- AVOID the systemic use of corticosteroids for 2 weeks after the procedure.
- AVOID Alcohol and Cigarettes for 5 days after the procedure.
- EAT a healthy diet and HYDRATE very well – at least 6-8 glasses of clean fresh water, before your appointment . Attend 4-6 week follow up appointment with your provider for further instructions and intervention if necessary.

# The Aesthetic Lab

Please note that the following table is for guidance purposes only.

Treatment Area	Number of Sessions	Number of Vials Per Session
Crows Feet	3-4	1
Tear Trough Prep for Filler	3-4	1-2
Tear Trough Stand Alone	4-6	1-2
Full Face Rejuvenation	4-6	2-4
Neck Rejuvenation	4-6	2-4
Chest (Décolletage)	4-6	2-4
Backs of Hands	4-6	2
Small Area Scar 5cm x 5cm	4-6	1