



Platelet Rich Plasma (PRP) Injections/Micro-needling

Hair Rejuvenation

Platelet Rich Plasma, also known as “PRP”, is an injection treatment in which a person’s own blood is used for skin regeneration or hair rejuvenation.

The blood will be drawn in our office using the same technique as having it drawn for routine lab testing. It is spun in a special centrifuge to separate its components, and to extract the most concentrated “platelet rich” portion of the plasma. Platelets are very small cells in your blood that are involved in the clotting and healing process. When PRP is injected or micro-needled into the treatment area it causes a mild inflammation that triggers a healing cascade. As the platelets organize in the treatment area, they release several enzymes, growth factors (GF), chemokines, cytokines and other plasma proteins promote tissue healing. This including attracting stem cells and releasing growth factors to repair treated tissue. PRPs safety has been established for over 20 years for its wound healing properties. Its proven effectiveness has extended across multiple medical specialties including cardiovascular surgery, orthopedics, sports medicine, podiatry, neurosurgery, dermatology, urology, dental and maxillofacial surgery as well as aesthetic applications. PRPs use in wound healing, aesthetics and skin rejuvenation began in approximately 2004 in Europe and Asia. Areas typically treated for aesthetic purposes, volume restoration, and skin rejuvenation include the face, neck, lips and back of the hands. PRP is also used to stimulate hair growth in various forms of alopecia in both men and women. Because it is enriched plasma derived from one's own blood, it is considered safe and effective for almost all skin tones and is virtually allergy free.

Research shows PRP is therapeutic option for hair loss, in both androgenic (male hormone-related) hair loss and alopecia areata. Although the exact mechanism is not completely understood but studies suggest that hair regrowth may be due to PRP’s local effect on: Vascularization → Increasing local blood supply. Enhancing hair follicle viability → Reducing chances of hair loss. Prolongation of the anagen (active growth) phase of the hair follicle → Leads to less hair loss and longer hair. Recently, it is becoming a popular complement to hair transplants, as PRP therapy can help accelerate the growth of transplanted hair follicles through the described mechanisms.

Androgenic Alopecia: Men- M Shape thinning, hair thins at crown, leads to partial or complete baldness. Women –Hair thins all over, usually doesn’t recede. Alopecia Areata due to autoimmune disease, attacks hair follicles, more resistant to treatment. These are the two most common causes, there are many factors involved in hair loss. Other causes are due to hormones called androgens, especially dihydrotestosterone (DHT). Androgens are important for make sexual development and regulate hair growth and sex drive in both men and women. A full medical history must be taken at time of consult. Some medical causes: polycystic ovary syndrome, endometriosis, auto-immune, iron deficiency, heart disease, prostate cancer or diabetes.

Hair Growth Cycle

- Each hair grows from follicles under the skin
- Grows for 2-6 years
 - Anagen (growing phase)
 - Catagen (transition phase)
- Telegen (resting phase) for several months
- Falls out (Exogen)
- Cycle starts over again
- Increased androgen levels
 - Shorter cycle of hair growth
 - Growth of shorter, thinner strands of hair - Delay in growth of new hair

How many treatments are required?

This will depend upon your general health, age and quality of their skin. Normally it is advised to have 3 or 4 treatments 4 weeks apart. Maintenance twice a year.

How long do the results last for?

If there are healthy hair follicles present, improvement can be seen from 8-24 weeks, with ongoing improvement depending on the quality of the hair follicles.

What are the expectations for PRP for Hair?

- You need functional, active hair follicles for optimal results. You will then see and feel hair density improvement, increased hydration in the scalp, less itchiness, inflammation and irritation to the scalp
- A mix of modalities, such as oral supplements (Viviscal), LED light hair helmet, topical supplements may improve the results seen.

What preparation does the patient need to consider?

- Stop taking medications or supplements that affect platelet viability such as non-steroidal anti-inflammatories after consulting your medical practitioner:
 - Nurofen (ibuprofen)
 - Voltaren (diclofenac)
 - Naprogesic (naproxen)
 - Aspirin (acetylsalicylic acid) - St. Johns Wort
- Keep hydrated by drinking plenty of water leading up to and after your procedure
- Patients need to avoid meals with high fat content the night before. Caffeine should be cut down on before the procedure, as excessive amounts can affect the viability of platelets. If the patient is a smoker, they should ideally reduce cigarette intake before considering a PRP procedure.

End results depend on many factors, including the aggressiveness of the treatment, adherence to post treatment care regimen, proper nutrition, and good general health. The most important being the degree of cumulative sun and environmental damage to your skin and tissues.

Treatments are designed to maximize the results of the treatment within safe and predictable parameters. The number of treatments needed cannot always be accurately predicted, even under the best of circumstances. Appropriate intervals between treatments are needed to allow the healing process to complete the cycle. The next treatment is then decided upon, given the results of the previous one.

Good general health is the key to excellent and predictable outcomes by supporting your cells to work well and promote healing.

Contraindications:

There are very few contraindications to receiving PRP for aesthetic procedures. Parental consent is required for those under 18 years of age.

- Cancer, chemotherapy treatments
- Acute or chronic infections, sepsis
- Abnormal platelet function or blood disorders
- Skin diseases or allergies
- Any severe metabolic or systemic disease
- The use of blood thinners or systemic corticosteroids
- Squamous cell carcinoma (SCC), basal cell carcinoma (BCC), melanoma
- Dermatological diseases affecting the face such as porphyria
- Pregnancy and breastfeeding

Caution and Warnings:

- Consistent use of anti-inflammatories such as non-steroidal anti-inflammatory drugs (NSAIDs) within 48 hours of procedure
- Corticosteroid injection at treatment site or systemic use of corticosteroids within 2 weeks
- Recent fever or illness
- Haemoglobin <10 g/dL
- Platelet count less than 105/ μ L
- Smokers, including vaping and e-cigarettes may need more treatments

Risk and Complications:

Potential side effects include:

- Pain, bleeding, and/or bruising at the injection site
- Flushing of the skin, swelling, itching
- Allergy to the anticoagulant solution used to process the blood.
- Injury to a nerve and/or muscle
- Infection as with any type of injection
- Dizziness or fainting
- Nausea or vomiting
- Minimal effect from the treatment. Remember, your own tissue will rarely if ever, do you harm.

Alternatives to PRP:

- Do nothing
- Hair transplant
- Use topical treatments and natural supplements
- Exersomes

Results: Each person has a unique response to PRP treatments. The outcome is generally very positive, but patience is necessary. The regeneration process can take months and multiple treatments may be required to achieve optimal results. Initial results are usually visible at 4 weeks, continue to improve gradually over the ensuing 3-6 months.

Pre-Procedure Preparation

5-7 days before treatment

Stop taking supplements that increase bruising and bleeding

- Green tea
- Omega supplements (fish oil)
- Evening Primrose oil
- Galic
- Echinacea
- St. John's Wort
- Vitamin E

Stop taking medications that increase bruising and bleeding such as non-steroidal anti-inflammatory medication after consulting with your medical practitioner.

- Nurofen (ibuprofen)
- Voltaren (diclofenac)
- Naprogesic (naproxen)
- Aspirin (acetylsalicylic acid)

Keep hydrated by drinking plenty of water leading up to your procedure

Exfoliation of the scalp using these brushes. You can buy these from Kmart



Unhealthy scalp Vs Healthy scalp



Use Minoxidil (Rogain ®) 5% twice day application showed significant increase in hair count. Follow product instructions as per manufacturer for topic use for men and women.

Optional: Microneedling at home: with home dermal roller if you have one.



This is optional: you can dermal roll at home or we can microneedle in clinic with PRP injections.

Using topical Minoxidil or dermal roller for hair growth are both effective therapies in reversing pattern hair loss or diffuse thinning in both men and women on their own, but when combined, they enhance each other's effect

While Minoxidil opens the blood vessels to bring your hair follicles more nutrients, derma rolling increases the absorption of topical medication through your scalp. That sounds like a good combination. So, can they be used together for an even more powerful therapeutic effect?

Here are the main steps that should be followed when combining Minoxidil and derma roller:

- Clean your scalp well and dry it completely
- Sterilise your derma roller
- Apply a local numbing cream if you think you may need one
- Move the derma roller horizontally and then vertically across your scalp, while applying gentle pressure. See the instructions inside your dermal roller pack.
- Clean and disinfect your derma roller
- Wait 24 hours before applying topical Minoxidil on the scalp and gently massaging the area. Do this once per week.

Take natural supplements, Viviscal or Nutrafol.

PRP is also a very safe procedure with minimal risk of aftereffects or side effects.

You may experience swelling or redness at the treatment site or bruising or tenderness for a short time afterwards. This will pass quickly and should leave no long-term effects.

The skin on the head is sensitive. Even though PRP skin treatment is perfectly safe and non-invasive, there is a chance you may experience some form of aftereffect.

We do everything we can during PRP skin treatment to avoid discomfort or leaving signs of treatment, but everyone is different.

To help promote fast healing after PRP hair treatment, we recommend doing the following:

- Avoid exposing the treated area of skin to direct sunlight for 24 hours
- Avoid alcohol and smoking for 24 hours
- Avoid strenuous exercise for 12 hours
- Avoid touching the treatment site for as long as possible.

If you're planning any other skin treatments such as chemical peels, skin resurfacing, fillers or anything else, please discuss it with our team during your appointment.

Post-care:

Patients should abstain from washing their hair for a minimum of 4 hours post-procedure. They should avoid taking non-steroidal and anti-inflammatory drugs for 24 hours after the procedure.

Continue with Minoxidil daily 24 hours post PRP.

Continue with exfoliating in the shower

Optional for home care: Dermal roller needling with Minoxidil (Rogain®)

Continue with supplements

Other items to avoid for this period post-treatment include: - Hair dyes

Heated styling tools - Hair styling products.

We look forward to working with you at HydroDerm Skin Clinic