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 **PRP TREATMENT (Platelet-Rich-Plasma Treatment)**

**What is Platelet-Rich-Plasma (PRP):**

Plasma is the liquid that holds the blood cells in suspension. There are three types of blood cells in the plasma: red blood cells which carry oxygen, white blood cells which help fight infections, and platelets which are responsible for blood clotting, scab formation, wound healing and repair. PRP is a plasma solution which contains about five times the concentration of the normal platelet level. After injury, platelets play a critical role in the healing response by releasing growth factors. Many of these growth factors are thought to promote hair growth.

**How does PRP work?**

We do not know exactly how PRP stimulates hair growth. There are limited studies that show PRP can stimulate hair growth in the laboratory and clinical trials. It is postulated that the growth factors in PRP stimulate new blood vessels, amplify your natural wound healing process and even possibly stimulate stem cells. More research is needed to identify how PRP works in stimulating hair growth.

**How is PRP prepared?**

After drawing your blood the platelet rich plasma is separated from the rest of the blood by using an automated centrifuge system.

**How much blood is drawn?**

We will need to draw 60 ml to 120 ml of your blood. This is a bit more than when you need to have your blood drawn for testing at the doctor’s office. We use a butterfly needle, and most patients say this part is pain free.

**Are there risks of PRP?**

Since PRP is derived from your own blood, safety concerns are minimal. So far no studies have shown any safety concerns or side effects of PRP. It has been used for years in orthopedic medicine and dental procedures without any reported side effects.

Some patients have pain after the procedure but most do not report pain. Also there is the possibility of swelling.

**Contraindications:**

Tell the doctor if you are on anticoagulant therapy (Coumadin, Plavix), taking a B Blocker, have an active infection, or are pregnant

**Are you candidate for PRP?**

**PRP can be used in two ways: as a stand-alone therapy or as an adjunct to hair transplantation.**

1. Stand Alone Therapy: For both men and women who have thinning hair but not enough thinning to be a candidate for hair transplantation. For men and women who cannot tolerate other medical treatments such as finasteride (Propecia®) or minoxidil.
2. As an adjunct to hair transplant surgery. There is a possibility that PRP enhances the body’s own natural healing after a transplant both in the donor and recipient area. There is very little research in using PRP this way, and most of our information is anecdotal. Also, if one has a limited donor and can only do a part of the balding area in one surgery, PRP can be used an adjunct to stimulate hair growth in areas not transplanted.

**Will PRP work for you?**

We have seen some very good results using PRP used in areas of thinning hair. It does not work for all patients, and we do not know why it works in some cases but not in others. The use of PRP in hair growth is relatively new and is not FDA approved for this treatment. Thus it is still considered experimental. At SMG we have decided to offer PRP due to some excellent results seen by some of the top physicians in the hair transplant industry and some studies that have shown good results. We still have a lot to learn. It works best in areas where there is still a lot of miniaturized hair. It most likely will not work well in areas that are completely bald.

**PRP and ACell® MatriStem® MicroMatrix**

The best results we have seen have been using PRP and ACell® MatriStem® MicroMatrix together. There are no good studies to support or not support the use of ACell, but anecdotal reports indicate using them together may be more effective then PRP alone.

**Post Treatment**

• You may experience some pain. Usually Tylenol® is sufficient to control any pain. We will provide you with stronger pain medicine for the first night.

• **Swelling is a common side effect of PRP when using the protocol that is best for hair growth. Swelling around the eyes is likely but can be reduced with icing. We will give you ice packs to ice the forehead. We will show you a massage technique that will push the fluid to the sides and make the swelling less obvious.**

• Do not take aspirin or NSAIDs for two weeks after the procedure.

**If you have any questions, please contact Matt Zupan by phone at 952-926-0000 (Office) or 952-239-6810 (mobile) or by email:** **matt@shapiromedical.com****.**

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