

Platelet Rich Plasma

What is Platelet Rich Plasma (PRP)?

Blood is made up of red and white blood cells, platelets and plasma, the liquid that all the cells are bathed in. The part containing platelets contains a “soup” of growth factors that can be used to stimulate new hair growth or regeneration of tissue.

How is PRP prepared?

PRP comes from your own blood. The first step is to have a blood draw, just like when having a blood test. Depending on the different systems, between 20-120mls are taken. An anti-coagulant is added to stop the blood clotting. The blood is then spun down once or twice.

All the cells in the blood are of different sizes, red blood cells are bigger than white cells, which in turn are generally bigger than platelets. Through a centrifugation technique (spinning), cells of different size can be separated from each other and from the plasma. Some PRP systems use a gel to separate and a single spin technique. Others use a double spin technique, which has the potential advantage of platelets not be trapped in the gel or small parts of the gel being injected too.

For the mainstay of treatment under my care, we have opted for 54mls of blood and a double spin system producing around 6mls of PRP product. We believe this is the highest quality PRP system anywhere on the market.

What is PRP used for?

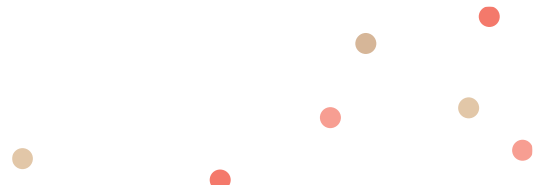
PRP was originally used in orthopaedics to help tendon repairs, bone repairs and soft tissue injury. It has been used to aid healing in chronic wounds. In hair loss the most evidence is as an adjuvant treatment for pattern hair loss. It has been used with mixed success in alopecia areata. It is increasingly being used in scarring alopecias (Frontal Fibrosing Alopecia, Lichen Planopilaris, Central Cicatricial Centrifugal Alopecia etc). It promotes the growth part of the hair cycle and may also be beneficial for hair cycle disturbances like Telogen Effluvium. Beyond pattern hair loss, the use of PRP is still experimental.

How often does PRP need to be repeated?

The frequency of PRP varies depending on the indication and the system being used. Gel systems, where the concentration of platelets are much lower, may need to be repeated monthly initially for the first three months and then every 1-3 months. Higher volume double spin systems are often used less frequently, such as every 6-12 months.

It is common to have two to three treatments initially at 6-12 week intervals and then for the frequency to decrease.

Conditions like pattern hair loss will require continuing treatment. Hair cycle disturbances and Alopecia Areata may just require a one-off treatment.



Is PRP painful?

PRP is injected with multiple injections into the scalp. This can be done with a normal syringe and small needle, which is slightly painful at each injection site. Alternatively, the PRP can be delivered with a mesotherapy gun device. This fires the needle far more rapidly which is virtually painless and no anaesthetic is required with this approach. The MP gun has two modes. The micropapular mode replaces the normal needle and syringe with individual injections at 1 cm intervals. The nappage mode fires a needle repeatedly so a wider area is covered more evenly. This can be more painful but has the added benefit of adding a controlled and medically supervised microneedling treatment with PRP delivery.

What are the risks of PRP?

By using single use kit systems there are few risks as it is simply re-injecting your own concentrated platelets into your scalp. Pain is the major issue at the time of the injection. Bruising and mild swelling can occur. We always warn patients of the very small risk of infection and bleeding, but this is very unlikely.

I've seen PRP elsewhere cheaper, is it the same?

PRP is a blood product and it is very important that there is no contamination at any point. It is for that reason that most hospitals and clinics will use single use kit systems for the preparation of the PRP. The kits and consumables vary enormously in price from as little as £60 for a gel system to £300 for some of the higher volume double spin systems. The systems will generate very different volumes and concentrations of PRP. Hair loss often requires more volume and highly concentrated PRP and for that reason we have opted for one of the more expensive systems. It is likely that once established you will need a repeat treatment only once or twice a year, rather than four or more for other systems. When considering the price it is worth looking at the cost of treatment over a year, beyond the initial titration phase.

How do you know if it is working and whether it is worth continuing?

One of the reasons I did not adopt PRP when it was initially used in hair loss was I wanted a reliable and robust way that we could monitor the effect to determine if it was beneficial or not. Many studies have shown positive outcomes but we know that not everyone will respond.

For patients with pattern hair loss a hair density measurement can be undertaken at baseline. I use the world leading system by Fotofinder to take a series of x50 images from the top, side and back of the head. These are sent to Tricholab for analysis. This is carried out at baseline and repeated at 6 months. Clinical photographs are taken in addition for pattern hair loss and as the main way of assessing outcomes of other conditions.

Do I need to continue other treatments?

PRP should be considered an adjuvant treatment supplementing traditional therapies. For example, in pattern hair loss many patients will be taking minoxidil, finasteride/dutasteride or Spironolactone and the PRP will be added in. There are patients who do not want to use chemicals like minoxidil or take tablets. PRP is considered a more natural therapy as it is simply injecting your own concentrated growth factors to where you want them to have a positive effect. It can be used as a monotherapy.

