



## PRP GENERAL INFORMATION:

FYSICL has the expertise, experience and equipment to offer PRP injections as safe effective option for sports injury (to aid recovery) and joint injury (to help reduce pain and promote joint function).

If you've never had a PRP injection and are wondering what it can do for you, this treatment has a high rate of effectiveness in many injuries where patients have got "stuck" with symptoms and are unable to progress their recovery and rehabilitation.

The following describes the key facts and information we feel you need to know about PRP, including what conditions it treats and how the process works.

### What Is a PRP Injection?

A PRP injection is when PRP, or platelet-rich plasma, is administered to the body via injection. PRP is a natural way to stimulate healing in the body. It has a localized effect, meaning it must be delivered to the area that has been injured or is experiencing chronic pain.

The key ingredient that makes PRP so effective are the platelets. Platelets play several important roles in your body. Most notably, they contain several healing type hormones and "growth factors" that encourage new cells to grow while promoting removal of damaged cells from the site of an injury.

PRP lets us take control of your body's healing processes, accelerating them and getting you back on your feet faster.

For patients interested in a more detailed science of the platelet contents and function please follow this link (though it is rather heavy on jargon) :

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5329835/>

### What Is Platelet-Rich Plasma?

As its name implies, platelet-rich plasma is a volume of plasma with a high concentration of platelets. To produce PRP, all we do is extract a small amount of blood from a vein in your arm. From there, we spin it in a centrifuge, separating each component.

The machine then siphons off the platelets and some plasma. The process is repeated until the concentration of platelets reaches the target amount. This may vary from treatment to treatment. The whole production process takes about 15-25 minutes, depending on the location of the injury and the preparation to locate the injection precisely with ultrasound guidance.

The images at the end of this text illustrate the process step by step (The patient gave written consent to use these anonymised images on 13-09-2021).

### What PRP system does FYSICL use?

FYSICL reviewed all of the current systems for system-safety, effectiveness, cost and evidence. Dr Robertson concluded that **Tropocells system** was the best option to offer to our patients. It is a closed system, bringing the risk of complications such as infection to near-zero levels. The process is also one of the most cost-effective and is conveniently efficient with a short centrifuge/spin time.

### Is PRP Safe?

PRP treatment is quite possibly the safest form of intervention available. First of all, PRP is autologous, meaning it comes from your own body. There's no need for donor material and the risks associated with receiving donated blood.

Secondly, when you compare PRP to surgical procedures, the outcomes are generally in favour of PRP. Granted, there are some cases that PRP cannot treat, such as severe ligament tears that require surgery. However, for milder issues, PRP reduces recovery time without the complications of surgery.

### **PRP's History**

PRP has been in use for well over 50 years. It was first used to help patients recover from open-heart surgery. However, it quickly spread to other areas once its restorative properties became clear.

By the 80s and 90s, PRP had made it into sports medicine. Numerous pro athletes receive PRP treatments to recover faster from injuries.

### **What Conditions Does PRP Treat?**

Although we mentioned a wide variety of PRP treatments, at FYSICL we specialize in promoting functional movement and generating tissue health. PRP plays a significant role in our injection protocols. This provides an alternative to surgical approaches and leads to longer-lasting results.

### **Sports Injuries**

Whether you rolled an ankle playing basketball or took a bad tackle to the knee, a PRP injection can be very effective as a treatment option for joints and ligaments. Joints in particular are known for taking a while to heal. There is generally less blood flow to the nooks and crannies of your joints, which slows healing.

By injecting PRP into the joint, we can promote the healing of individual ligaments and generally improve the range of motion and comfort of the entire joint.

### **Injured/Damaged Muscles**

If you've had a partial grade two or even complete muscle tear, PRP therapy can reduce your recovery time and even promote stronger muscle fibers as the injury heals.

Whether you were hurt lifting weights or from playing sports such as football tennis and rugby, there is growing scientific evidence that your recovery and return to fitness outcome can be enhanced significantly and safely with PRP.

### **Osteo-Arthritis**

Recent studies are adding to evidence that PRP appears to have an effective additional role as another line of defense against arthritis of all types.

Osteoarthritis, the most common form, has remained troublesome to treat. There is no cure for arthritis, and most treatments are palliative in nature.

PRP may very well change that. Rheumatoid arthritis is another area of study currently, with early research showing that PRP can actually undo or halt the degenerative damage from arthritis.

This is due to PRP's ability to trigger the production of new cells. Your body will replace aging cells with new ones, literally restoring the area to a better condition. While consistent treatment is recommended for arthritis, patients report improvement with each session.

### **Tendinosis (chronic painful injury to tendons)**

Damaged tendons can be difficult to treat due to their hypovascular nature. This means they don't get very much blood flow. The typical advice is to simply rest, but for some people that just isn't an option.

**The science:**

The available science points to PRP injections working to promote the body to heal the tendon directly. Thousands of recreational, casual and elite athletes and exercisers of all ages have received PRP treatment for tendonitis, and has the potential for 50-70% improvement and to help you re-engage with rehabilitation exercises and recovery to regain fitness. But in the majority of cases, continued work with a physiotherapist or strength and conditioning coach is crucial to long term success, and reducing the chance and frequency of recurrence.

**Other Treatments**

As we alluded to, there are many other treatments that can utilize PRP. You can always ask if PRP could be right for your situation. Given its near-zero risk and high efficacy, it's rarely ruled out and can be useful in a number of applications.

**What Should You Expect From PRP Treatment?**

The first step of the process is to separate platelets and plasma from your whole blood using the process we described above. Once this has been completed, we will draw the PRP into a syringe and prepare the site for injection.

We encourage a healthy diet in the days leading up to the treatment as this will ensure that your plasma is of top quality. Your body replenishes its plasma roughly every three days, so you should try to eat clean for that period prior to the treatment.

Depending on the nature of the problem, we may administer PRP to several sites with small injections. For deeper injections, we can provide a shot of anesthetic first to make the process more comfortable. Overall, you should be in and out in less than an hour!

**Follow Up**

PRP treatments can produce results very quickly, and ideally only one treatment is required. But in some cases may require more than one treatment. But any decisions on treatment are always made in careful consultation with patients, and will include reconsidering whether other options (such as a surgical opinion) may be better suited if your recovery is not progressing as well as expected.

**Contact Us for More Information**

If you would like to know more about platelet-rich plasma injections and if they would be right for you, contact the clinic for further information. Alternately, you can discuss the option with Dr Robertson, who will happily explain the entire process to you and whether it may be appropriate for your problem.

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**Dr Duncan G Robertson**

FURTHER INFORMATION CAN BE FOUND AT THESE LINKS:

<https://www.hmpgloballearningnetwork.com/site/podiatry/current-insights-prp-and-achilles-tendinopathy>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5505601/pdf/98-106.pdf>

<https://reader.elsevier.com/reader/sd/pii/S2049080120300832?token=517B31729CE0C9AA6A95B5B57D0B22318996A7C8AE8F0DBA68FC60F38A86DE3A758606444983174FD8BA8FE82962D5F7&originRegion=eu-west-1&originCreation=20210824153034>

<https://www.michfoot.com/blog/why-prp-is-a-boon-for-athletes-with-achilles-tendonitis>













