

Considering PRP?

This flyer provides basic information about platelet-rich plasma (PRP) injections for tendon injuries, ligament injuries and osteoarthritis.

Ask how PRP might be an option for you!

What Is platelet-rich plasma (PRP)?

PRP is plasma (the non-cellular fluid of blood) with a high concentration of platelets and low concentrations of red and white blood cells.

How is it made?

To create PRP, a 60–90 milliliters sample of venous blood is first collected and placed into a specially designed syringe. The sample is then centrifuged for 20–30 minutes. During this process, the platelets, red blood cells, white blood cells and plasma are separated into different layers. The centrifuge isolates the platelets, adds a small volume of plasma, and places it into another syringe to be injected back into the patient.

How does PRP work?

Platelets are best known for their role with blood clotting. However, the alpha-granules of platelets contain large amounts of growth factors, which are proteins known to initiate and assist in the rebuilding and remodeling process of healing tissue.

These growth factors include platelet-derived growth factor, vascular endothelial growth factor and transforming growth factor. Placing a very high concentration of these growth factors near injured areas is thought to accelerate the body's natural healing response. Additionally, PRP can be formulated to have an apparent anti-inflammatory effect when used in osteoarthritis.

PRP has been in clinical use since as early as the late 1980s for dental, orthopedic and plastic surgery procedures. Very recently, growing evidence has been published showing promise in treating osteoarthritis and tendon, ligament and muscle injuries with PRP.

What are the potential benefits of a PRP injection?

In the literature, patients have shown significant improvements in pain and function after PRP treatment for conditions including osteoarthritis and degenerative tendons such as in chronic tennis elbow.

Other common areas of injection include the Achilles tendon, rotator cuff, hamstring tendons and elbow ligaments. Definitive research studies still need to be performed for these specific areas, but many sports medicine physicians are reporting successful outcomes after treating injuries to those areas with PRP.

Our Team of Specialists



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Your PacMed™ primary care doctor or our specialists above will be happy to answer your questions as you explore your options. To schedule, please call 206.505.1300

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Is there a difference between the PRP at PacMed and the PRP from other clinics?

There are many different types of PRP systems available. PacMed uses the Arthrex Angel® PRP system because it allows us to control the concentrations of white blood cells, red blood cells and platelets, as well as the plasma volume in our injections. Currently, no other system can do this.

There are several reasons why this is important. First, research suggests that the composition of PRP affects the outcomes of the treatment. For example, the concentrations of white blood cells and red blood cells in the ideal PRP for osteoarthritis treatment appears to be different from PRP for optimal tendon treatments. Secondly, the Angel system gives us the control necessary to reproduce the same PRP compositions in each injection so that there is less variability from one injection to another. Finally, there is ongoing research into further specifying the optimal components of PRP for each area of injection. Using the Angel system, we can modify our PRP compositions to fit with the latest research to give our patients the best chance at successful outcomes.

What are the potential risks of a PRP injection?

PRP is derived from your own blood, so there is no risk of an adverse allergic or immune reaction. Very few side effects are known with this procedure. The most common risk is an infection from the needle penetrating the skin. This is the same risk compared to any other injection that penetrates the skin, and has a far less than 1% incidence. There is also a very small risk of bleeding following the procedure that usually resolves with direct pressure over the injection site. There could be some soreness in the treated area following the procedure as well. If this happens, the discomfort should gradually improve over the next several days.

What should I expect during the procedure?

You will be scheduled for a time to have your blood drawn and centrifuged. Once the PRP has been made, the affected area will be sterilized to lower the risk of infection. Ultrasound may be used to identify the targeted area before and during the injection. A small amount of anesthetic will be used prior to the injection to make it more comfortable for you. During tendon injections, your physician may also needle the tendon or the bony attachment of the tendon to improve the healing response. A Band-aid is placed over the injection site.

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