



## Platelet Rich Plasma (PRP) Injections

Scan the QR code to watch a short video about PRP injections, including tips on post-injection care.



### What is a Platelet Rich Plasma injection?

- Our blood consists of cellular and liquid components, where the liquid component is known as plasma. Plasma contains small solid components such as red blood cells, white blood cells, and platelets. The platelets are best known for their role in clotting blood, but they also contain hundreds of proteins called growth factors, which play an important role in healing injuries.
- Platelet rich plasma (PRP) is plasma with many more platelets than we typically find in blood. The concentration of platelets can be 5 to 10 times greater than blood, which means there is also a much higher level of growth factors.
- To make a PRP preparation, the doctor will first take some blood from your arm. Your blood is then spun in a machine to concentrate the platelets and separate them from the rest of the blood. After this spinning, the solution has increased concentration of platelets or is “platelet rich” and this is then used as an injection to stimulate healing.

### Why get a PRP injection:

- Laboratory and research studies have shown that the increased concentration of growth factors in PRP can speed up the healing process of certain tendon and ligament injuries, including rotator cuff, ulnar collateral ligament (UCL) tears, tennis elbow, hamstring injuries, and Achilles tendinopathy.
- PRP shows promise in managing certain osteoarthritis (OA) conditions, particularly for knee and hip OA.
- PRP offers a minimally invasive alternative to surgery. It can also be used in conjunction with surgery to enhance healing and recovery.

### What to know before considering a PRP injection

- **Cost Information:** PRP's higher cost is due to the specialized process: drawing blood, using expensive centrifuges and kits for platelet concentration, and requiring a precise, often image-guided injection.
- **Supplements & Medications:** Stop taking anything that can affect your platelets for two weeks prior to your PRP procedure. This includes:
  - **Supplements:** Evening primrose oil, fish oil, flaxseed oil, and omega-3 supplements.
  - **Medications:** Avoid NSAIDs (e.g., Ibuprofen, Aleve, Naproxen, Aspirin, Motrin, Voltaren, Diclofenac). Discuss with your doctor if you take any blood thinners, as these may need to be reduced/avoided prior to the procedure if possible (e.g., Coumadin, Eliquis, Xarelto, Plavix). You can safely use Acetaminophen (Tylenol®) for pain relief at any time.
- **Medical conditions:** There are certain conditions that may not make you a good candidate for PRP injections including: blood dyscrasia (blood disorders), thrombocytopenia (low number of platelets), sepsis, anemia, and cancer.
- **Light activity prior to treatment:** Immediately before blood drawing, light activity is encouraged to help increase platelet amount.
- **What to expect at a PRP injection appointment:** On the day of your appointment, please wear comfortable clothing (t-shirt, shorts), that allows easy access to the injection site. Plan to arrive about 10 minutes early to complete the check-in process. While the injection itself only takes a few minutes, most appointments typically last around 45 minutes.

## Post injection care & expectations

It's normal to feel mild pain or discomfort for a day or two after the injection—this is a sign that your body is starting a healing response, similar to what happens after an injury. To care for the injection site:

- **Rest:** Limit activity for the first 24–48 hours after the procedure. Light movement and gentle range-of-motion exercises are encouraged during the first three days. Refrain from heavy lifting or high-intensity exercise for at least two weeks. Around this time, starting physical therapy is recommended to support full recovery and strengthen the affected joint. Your physician will discuss specific protocols with you.
- **Stay Hydrated:** Hydration before and after an injection can help support blood draw, platelet concentration, and promote healing.
- **Ice and elevate joint:** Ice wrapped in a towel (do not apply directly to skin) can be applied over the injected area for 15-20 minutes every 2-4 hours for the first 1-2 days following the procedure.
- **Supplements and over the counter medication:** Do not take any drugs or food supplements that affect platelets for two weeks after procedure (same list as above). You can safely use Acetaminophen (Tylenol®) for pain relief at any time.
- **Avoid heat:** Avoid having a hot bath, using a hot tub, or a heating pad on the area for the first 2-3 days following an injection. Showering is completely ok.
- **Relief:** Do not expect an immediate response to PRP. The full response may take 6-8 weeks. PRP results vary, and it is hard to predict the results from PRP injections. Continued improvement can occur for up to 6 months post injection.

*If symptoms persist, or you are experiencing intense pain, a fever, chills, swelling getting progressively worse, or if you notice a significant change in your well-being, please consult your healthcare provider immediately.*

## What about additional injections?

- **Multiple injections:** PRP injections are a natural, safe and chemical-free treatment using plasma from your own blood. This means that receiving multiple injections poses no extra harm, and can be beneficial in promoting healing and minimizing inflammation.
- **Combination therapy:** PRP injections can be used with other injections, such as Hyaluronic Acid (HA). Studies have showed successful results using PRP and HA together for conditions such as knee OA.
  - Note: it is best to avoid corticosteroid injections within six weeks of receiving PRP therapy, as they reduce inflammation and may counteract the healing effects that PRP is intended to stimulate.

## Risks of PRP injections

### *Pain at the site of injection*

- A moderate amount of discomfort is expected due to the inflammation caused by the injection. This increased inflammation is one of the ways that PRP promotes healing. Inflammation results in repair of the damaged tissues at the site of injection, however it also causes swelling and pain. You may choose to take a pain reliever such as Acetaminophen (Tylenol®) to treat this discomfort if regular cold packs are not providing relief. If the post-injection pain is unusually severe or prolonged, please make sure you call your doctor.

### *Infection (1 in 10,000 injections)*

- The risk of infection is extremely low. Studies have shown the risk of infection after an injection is 1 in 10,000 injections. Signs of infection include fever, chills, and pain, warmth and redness around the area of the injection. Symptoms of an infection could occur up to 10 days after the injection.

- If you have any of these symptoms please call our office, the Banff Mineral Springs Hospital, or go to the nearest urgent care or emergency clinic and tell them that you had a PRP injection.

#### *Allergic reaction*

- Allergic reactions following PRP injections are considered very rare as PRP is made from your own blood.

#### *Bruising and skin discoloration*

- Sometimes the skin around the area of the PRP injection will appear bruised or discolored. This could be normal, based upon your history of bruising. But if it's an unusual deep and dark bruise, or you simply don't bruise easily, contact your doctor as soon as possible.

#### *No improvement in symptoms*

- While this is not necessarily a side-effect, it is important that you know that not all patients respond to a PRP injection. Sometimes the original pain and soreness of the injury remain (it may even get worse), even after an extended rest period following PRP therapy. If this occurs, please book an appointment with your doctor to discuss other treatment options.