

Platelet-Rich Plasma (PRP)

Answers to common questions about PRP injections

What is PRP?

Platelet-Rich Plasma, or PRP, comes from your own blood. Platelets are cells that contain growth factors, which stimulate the normal healing process. PRP creates a higher concentration of platelets to boost healing in an area with a chronic injury. In osteoarthritis, these growth factors are thought to decrease inflammation and cartilage degeneration. All PRP injections are performed under ultrasound guidance to ensure correct placement.

Is PRP right for me?

PRP is used for injuries that have not healed despite conservative or other traditional treatment (rest, physical therapy, medications, etc.). PRP can be used in any musculoskeletal structure, including tendons, muscles, joints, and ligaments. For osteoarthritis, PRP is most effective for mild to moderate arthritis, but it can also help with pain and joint function in severe arthritis.

How is PRP made?

Blood is drawn from your arm, just like a routine blood test. It is then spun in a centrifuge, which separates the layers of the blood. The platelets are extracted in their concentrated form, called PRP.

How many treatments are needed?

Most patients have a successful outcome with just one injection. In some cases, more injections are needed for significant results, spaced several weeks apart. There is no limit to the number of treatments you can have. Studies show that about 15% of patients do not improve after three or more injections and should consider other treatment options.

Are there any side effects?

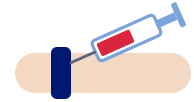
Because PRP uses your own blood, there is no risk of rejection or blood-transmitted infection. PRP has a strong antibacterial effect, which minimizes the risk of local infection. It is normal to have increased soreness or pain after the procedure.

Will my insurance pay for this treatment?

PRP is a fairly new procedure. It is still viewed as experimental by the U.S. Food and Drug Administration, so most insurance companies do not cover it.

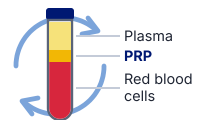
Cost: One knee **\$800** • Both knees **\$1,400** due at the time of your visit

How PRP is made



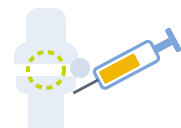
1 Blood draw

A small amount of blood is drawn from your arm.



2 Separation

A centrifuge spins the blood to separate and concentrate the platelets.



3 Injection

The PRP is injected into the injured area under ultrasound guidance.

The whole procedure is done in the office, and you go home the same day.

What are the potential benefits of PRP?

As described on the front of this sheet, PRP can help decrease inflammation and cartilage degeneration in patients with osteoarthritis. In randomized controlled trials, patients had less pain 6 and 12 months after the procedure compared with other injections, such as corticosteroid and hyaluronic acid (HA) injections.

When injected directly into soft tissue, PRP can stimulate healing of injured tissue by activating the body's natural healing response. On average, patients report 50% improvement at 6 weeks and up to 100% improvement at 12 weeks. This can help eliminate the need for more expensive or aggressive treatment, such as surgery. PRP is a minimally invasive procedure performed in the office, and you go home the same day.

Before your procedure

- **Stop anti-inflammatory (NSAID) medications 5 days before your procedure.** This includes, but is not limited to: ibuprofen, naproxen, diclofenac, meloxicam, Celebrex, and aspirin. It also includes the supplements fish oil and turmeric.
- Eat a healthy diet low in fatty foods, and avoid nicotine and alcohol.
- **Come to your visit well hydrated.**
- In some cases, you may need to stop blood thinners (such as aspirin, Plavix, or Coumadin) 7 days before the procedure. Please discuss this with our doctors and with your cardiologist or other prescribing physician. You may continue all other daily medications.
- In some cases (especially if the injection is in your **right** leg), you may want a friend or family member to drive you on the day of the procedure, as pain afterward may limit your ability to drive.

After your procedure

The most important part of PRP treatment is following the post-procedure protocol. This helps the tissue heal and lowers the risk of further damage. You will receive a PRP protocol on the day of your procedure. Key points:

- **Avoid anti-inflammatories (NSAIDs) for 2 weeks after the procedure.** If medically able, you may take acetaminophen (Tylenol) for pain.
- Irritation, pain, or soreness in the treated area may increase after the injection. You may ice the area several times a day for 20–30 minutes.
- Blood thinners may be restarted 24 hours after the procedure.
- **Physical therapy should begin 10–14 days after the procedure.** You will get a PT prescription on the day of your visit, and you may schedule your first appointment before the procedure.

Call our office if you develop a fever, swelling, or redness that does not go away at the injection site.

Platelet-Rich Plasma (PRP) Protocol

Hip & Knee

David Lessman, MD · Proliance Orthopedic Associates Sports Medicine

Following this protocol after your PRP injection gives the treated tissue the best chance to heal. Find the phase that matches how long it has been since your injection. Your physical therapist may adjust your exercises as you progress.

PHASE I Days 0–3	PHASE II Days 3–10	PHASE III Day 10 – Week 4	PHASE IV Weeks 4–6	PHASE V Weeks 6–8	PHASE VI Weeks 8–12
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PHASE I Days 0–3 0–3 days after your PRP injection

Instructions	- Rest and protect the injected area — use crutches - No anti-inflammatory medications (NSAIDs) such as Advil, Motrin, ibuprofen, Aleve, or aspirin
Exercises	Gentle range of motion
Goals	- Protect the treated area - Prevent the joint from stiffening - Minimize pain

PHASE II Days 3–10 3–10 days after your PRP injection

Instructions	- Put as much weight on the leg as is comfortable and stop using crutches - Do NOT overstress the tendon: no heavy lifting, exercising with weights, or high-impact activities - No anti-inflammatory medications (NSAIDs) such as Advil, Motrin, ibuprofen, Aleve, or aspirin
Home Exercises	- Stationary bike (low resistance) - Isometric strengthening - Active range of motion as tolerated - Light stretching of the hip and knee muscles - Home exercises as prescribed by your provider
Goals	- Stop using crutches - Progress range of motion

PHASE III Day 10 – Week 4

10 days to 4 weeks after your PRP injection

Instructions	No anti-inflammatory medications (NSAIDs) such as Advil, Motrin, ibuprofen, Aleve, or aspirin until 2 weeks after your injection. You may restart them after week 2.
Physical Therapy & Home Exercises	Begin physical therapy 10–14 days after your procedure, 2–3 times a week, to restore normal range of motion and joint mechanics: - Stationary bike (low resistance) - Isometric and concentric strengthening, progressing to eccentric as tolerated - Low-impact table exercises (straight leg raises, bridges, clamshells, etc.) - Continue range-of-motion exercises - Light stretching of the hip and knee muscles - Home exercises as prescribed by your physical therapist
Goals	- Full, pain-free range of motion - Less pain with daily activities

PHASE IV Weeks 4–6

4–6 weeks after your PRP injection

Instructions	- Avoid high-speed, high-impact, or high-intensity exercise for now (running, jumping, plyometrics, throwing, or heavy lifting) - Avoid activities that cause pain afterward
Physical Therapy & Home Exercises	- Continue physical therapy 2–3 times a week for stretching and strengthening: - Stationary bike (moderate resistance) - Elliptical (increase resistance as tolerated) - Eccentric strengthening as tolerated - Continue active range-of-motion exercises - Light stretching of the hip and knee muscles - Home exercises as prescribed by your physical therapist
Goals	- Progress from isometric to concentric and eccentric strengthening as tolerated - Perform all daily activities pain-free

PHASE V Weeks 6–8

6–8 weeks after your PRP injection

Instructions	• Avoid high-speed, high-impact, or high-intensity exercise for now (running, jumping, plyometrics, throwing, or heavy lifting) • Avoid activities that cause pain afterward
Physical Therapy & Home Exercises	• Continue physical therapy 2–3 times a week for stretching and strengthening: – Bike or elliptical (high resistance) – Eccentric strengthening – Light stretching of the hip and knee muscles • Home exercises as prescribed by your physical therapist
Goals	• Improve strength and endurance • Pain-free strength testing of the treated leg

PHASE VI Weeks 8–12

8–12 weeks after your PRP injection

Instructions	• Avoid activities that cause pain afterward
Physical Therapy & Home Exercises	• Continue physical therapy 1–2 times a week for stretching and strengthening: – Bike or elliptical (high resistance) – Pre-plyometric exercises, progressing to plyometrics as tolerated – Balance and body-awareness (proprioceptive) training – Add sport-specific exercises • Home exercises as prescribed by your physical therapist
Goals	• Return to sport pain-free

Call our office at (425) 656-5060 if you have:

Fever, increasing swelling, or redness that does not go away at the injection site — or any questions about your recovery.