

## PRP THERAPY

PRP Therapy is a promising non-surgical treatment to accelerate the natural healing of osteoarthritis, tendons, ligaments and other soft tissue injuries without significant risk. As an emerging treatment, PRP uses the body's natural healing ability coupled with cutting edge science and technology to deliver fast healing and long-lasting results to soft-tissue injuries.

## WHAT IS PRP THERAPY?

PRP, or platelet-rich plasma, involves the use of a portion of patient's own blood to encourage healing of injured ligaments, tendons, muscles and even joints. The liquid portion of blood, also known as plasma, contains red and white blood cells, in addition to platelets. The high concentration of platelets act as a catalyst to grow new soft tissue or bone cells. Essentially, PRP is a protein that helps repair and rejuvenate tendon and ligament fibers. Unlike cortisone shots, which sometimes are only a band-aid solution, PRP actually heals the injured area.

## HOW IS PRP THERAPY ADMINISTERED?

PRP therapy is administered through an injection. After extracting one or more tubes of a patient's blood, the blood is spun using a centrifuge machine to isolate the PRP with growth factors and separate red blood cells from platelets that release proteins. After topical and injected local anesthetic is applied, the activated platelets are injected in the injured tissues. Depending on the injury, ultrasound may be used to help guide the injection.



## IS PRP THERAPY ONLY FOR ATHLETES?

No. Soft-tissue injuries, tendinitis and osteoarthritis affects everyone. PRP can help speed up healing, provide long-lasting benefits and save a trip to the operating room for many people.

"It's a better option for problems that do not have a great solution- it's nonsurgical and uses the body's own cells to help it heal," said Dr. Allan Mishra, an assistant professor of orthopedics at Stanford University to the New York Times.

## WHAT ARE SOME TYPICAL CONDITIONS TREATED WITH PRP?

<b>Knee</b>	Instability, partially strained or torn ligaments of the knee (MCL, ACL, or LCL) chondromalacia, meniscus tears, arthritis of the knee
<b>Shoulder</b>	Rotator cuff tear, rotator cuff tendinitis, bursitis, bicipital tendinitis, instability, labrum tear, arthritis of the shoulder
<b>Hip</b>	Bursitis, psoas tendinitis, iliotibial band tendinitis (ITB Syndrome), sacroiliac joint dysfunction
<b>Ankle</b>	Ankle sprain, ankle tendinitis, achilles tendinitis, peroneal tendinitis, instability
<b>Elbow</b>	Hand/wrist: golfer's elbow, tennis elbow, trigger finger, finger tendinitis, arthritis of the elbow, hand, or wrist
<b>Spine</b>	Ligament sprain, rib conditions, whiplash injury, arthritis of the spine

## ARE THERE ANY SIDE EFFECTS TO PRP THERAPY?

Because the therapy uses a patient's own blood, there are typically no negative side effects. Most patients tolerate PRP therapy quite well, although some patients report post-injection soreness. There is a risk of blood vessel or nerve injury when PRP is administered without the guidance of ultrasound.



# PRP

## PLATELET RICH PLASMA THERAPY



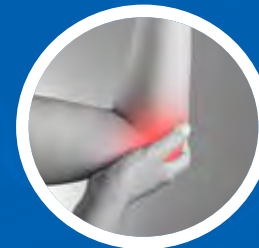


## WHAT IS PLATELET-RICH PLASMA (PRP)?

Platelet-rich plasma or PRP is an “autologous blood therapy” that uses a patient’s own blood components to stimulate a healing response in damaged tissues. In response to an injury or tissue damage, your body naturally recruits platelets and white blood cells from the blood to initiate a healing response. Under normal conditions, platelets store numerous growth factors which are released in response to signals from the injured tissue. Modern technology allows us to concentrate platelets and white blood cells from your blood, and induce this growth factor release as we inject the solution directly into injured tissue, simulating this same healing response in a more powerful form. By enhancing the body’s natural healing capacity, the treatment may lead to a more rapid, more efficient, and more thorough restoration of the tissue to a healthy state.

## WHAT CONDITIONS CAN BE TREATED WITH PRP?

- Knee Pain
- Tendon Injuries (Patellar Tendinitis, Quad Tendon)
- Muscle Injuries or Muscle Pain
- Ligament Sprains/Strains or Tears (MCL, LCL)
- Bursitis
- Osteoarthritis
- Hip Pain
- Piriformis Syndrome
- Greater Trochanteric Bursitis
- Sacroiliac Joint Pain
- Hamstring Tendinitis or Tears
- Shoulder and Arm Pain
- Bicipital Tendinitis
- Shin Splints
- Medial and Lateral Epicondylitis (Golfer’s & Tennis Elbow)
- Rotator Cuff Tendinitis, Tendonopathy or Partial Tears
- Lower Leg and Foot Pain
- Plantar Fasciitis
- Ulnar Collateral Ligament Sprain or Tear
- Peroneal Tendinitis
- Ankle Sprains or Ligament Injuries
- Achilles Tendinitis or Partial Tears



## TREATMENT PROCESS

Following a formal evaluation and diagnostic workup, an individualized treatment plan will be discussed with you. A full explanation of the procedure including risks and benefits will be reviewed. Once written consent is obtained, blood is drawn from your arm or from bone marrow aspiration in the back of your hip region, and is placed in a special processing unit, which separates platelets, white blood cells and serum from red blood cells. The platelets and white blood cells (including stem cells) are then concentrated and collected into a sterile syringe. Some of the blood is used to create an “activator” of the PRP. The skin and soft tissue is anesthetized with local anesthetic, followed by injection of both the PRP and activator into the tissue targeted for treatment. Depending on the size of the injured tissue, one or several needles are inserted to optimize placement of the product.

## TREATMENT PLAN

Depending on the severity and duration of your injury, one to three injections are suggested. Following the initial treatment with PRP, a follow up visit occurs 3-4 weeks later. At this visit an evaluation of your response to the initial therapy is performed and a decision is made regarding the need for additional PRP treatments. In general, chronic injuries often require more than one injection. In both acute and chronic injuries, injections may be combined with an exercise or physical therapy program to enhance the success of the treatment.

## ARE PRP INJECTIONS SAFE?

Research and clinical data show that PRP injections are extremely safe, with minimal risk for any adverse reaction or complication. Because the injectable products are produced from your own blood, there is no concern for rejection or disease transmission. There is a small risk of infection from any injection into the body, but this is rare. Of note, recent research suggests that PRP may have an anti-bacterial property which protects against possible infection.

## WHAT TO EXPECT AFTER YOUR TREATMENT

Often, following the initial injection, an “achy” soreness is felt at the site of injury. This “soreness” is a positive sign that a healing response has been set in motion. This effect can last for several days and gradually decreases as healing and tissue repair occurs. It is important that anti-inflammatory medications such as Ibuprofen, Naproxen and Aspirin be avoided following PRP treatments. These medicines may block the effects of the intended healing response facilitated by the injection itself. It is acceptable to use over the counter pain medication, such as Tylenol and in some cases a prescribed analgesic, which does not have anti-inflammatory properties, to control discomfort as needed. Pain management options will be discussed with you by the physician managing your treatment plan. You will be permitted to resume normal day to day activities and light exercise following injection. We suggest that you avoid strenuous lifting or high level exercise for at least several days after injection.

