

Platelet Rich Plasma Therapy: Natural Regenerative Healing

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Pain is a natural response to injury that everyone has experienced at one time or another. Whether you're a weekend warrior who injures yourself playing sports or suffers from an overuse injury like tennis elbow or tendonitis, pain is the body's way of reminding you to slow down so your body can heal. Many injuries are self limiting and will heal over time with minimal interventions such as relative rest, ice and/or heat, and over the counter anti-inflammatory medication. This passive approach does not speed the healing process or make you recover more fully, but is often effective enough. Unfortunately, sometimes you do not make a complete recovery and the injury becomes chronic and limits your ability to function fully or even return to your prior activity level.

Physiatrists (fiz-ée-a-trists) or Physical Medicine and Rehabilitation physicians are medical doctors that specialize in non-surgical treatment for various injuries and conditions. They focus on restoring function to get you back in action using a variety of modalities. One of the most exciting emerging procedures for soft tissue (muscle, ligament and tendon) injuries is **Platelet Rich Plasma therapy (PRP)**. PRP injections are an increasingly popular option with physicians and patients alike, because of their ability to naturally speed the body's healing process. The procedure centers on injecting portions of the patients own blood directly into their area of injury, which catalyzes the body's instincts to repair the injured tissue.

PRP is obtained by taking a small sample of a person's own blood and using a special centrifuge to separate it into its various components. The plasma portion of the blood sample contains platelets, which release protein growth factors responsible for initiating the body's healing process. The resulting plasma has a concentration of platelets up to 8 times that of normal blood. PRP therapy delivers a concentrated amount of growth factors directly into the injured tissue. This dramatically enhances the body's natural healing process and may result in a faster, more efficient, and complete restoration of the tissue to a healthy state.

This non-surgical procedure can be completed in an office setting. It is quick and fairly uncomplicated. Musculoskeletal ultrasound is used to visualize the injured area. A local anesthetic is injected prior to PRP therapy to maximize patient comfort. The previously collected sample of the patient's PRP is then injected into the injured area using ultrasound guidance to provide a precise injection into the target, which maximizes efficacy and minimizes discomfort. Following the injection, an "achy" soreness is often felt at the site of injury. This may last for several days and gradually decreases as healing and tissue repair occurs. The patient is allowed to return to daily activities and light exercises in a careful, progressive fashion following treatment.

Platelet Rich Plasma therapy offers results that are unprecedented by traditional therapy. Conventional treatments for soft tissue injury- rest, ice, NSAIDS, steroid injection- seek to decrease painful symptoms by reducing inflammation. PRP therapy seeks to decrease painful symptoms by actually assisting the body to regenerate the injured tissue, by initiating growth of new tissue and collagen. The hopeful difference of PRP therapy versus traditional treatments is correction of injury versus mere reduction of symptoms. The complete regeneration of collagen takes up to 4-6 months and may require several injections, although in most cases there is significant improvement in pain and function after just one injection. Pain and functional recovery are assessed 3-4 weeks after the injection to determine the need for further therapy.

Clinical Research shows that PRP injections are extremely safe, with minimal risk for adverse reaction or complication. Because PRP is prepared from your own blood, there is no concern for rejection or disease transmission. In fact, PRP contains a high concentration of white blood cells, which has an anti-bacterial property and helps to fight infection.

PRP has been used for over 20 years in numerous surgical fields to enhance bone grafting, accelerate wound healing, and reduce the risk of infection after surgery. In recent years, physicians have begun injecting PRP to treat painful soft tissue conditions including muscle, ligament, and tendon injuries. Tennis elbow, plantar fasciitis, achilles tendonitis, rotator cuff tears, meniscal tears, osteoarthritis, and bursitis are all being successfully treated with PRP. therapy Currently, there is investigation into using plasma products for the treatment of low back pain. The benefits have been utilized most notably among professional athletes, including Hines Ward and Troy Polamalu of the Pittsburgh Steelers¹ who were able to recover from their injuries and support their team in a Super Bowl victory. However, the major benefit will be to the weekend warrior or worker who over does it and sustains acute and/or chronic soft tissue injuries.

This method of treatment repeatedly demonstrates successful outcomes for a variety of conditions. PRP therapy may come to be considered a logical first step of treatment prior to, or possibly in place of, surgical intervention for some injuries. Whether you are a working professional who needs to get back to work, a sports enthusiast eager to get back in the game, or simply want to return to your daily activities, this procedure brings new hope for healing.

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