

Regenerative Injection Therapy with Growth Factors in Platelet Rich Plasma

An alternative approach to healing tendon and ligament injuries.

What is Platelet Rich Plasma?

Platelet Rich Plasma, or PRP is blood plasma with concentrated platelets. The concentrated platelets found in PRP contain huge reservoirs of bioactive proteins, including growth factors that are vital to initiate and accelerate tissue repair and regeneration. These bioactive proteins initiate connective tissue healing: bone, tendon and ligament regeneration and repair, promote development of new blood vessels, and stimulate the wound healing process.

How does PRP Therapy work?

To prepare PRP, a small amount of blood is taken from the patient. The blood is then placed in a centrifuge. The centrifuge spins and automatically produces the PRP. The entire process takes less than 15 minutes and increases the concentration of platelets and growth factors up to 500%.

When PRP is injected into the damaged area it stimulates the tendon or ligament, causing mild inflammation that triggers the healing cascade.

As a result new collagen begins to develop. As this collagen matures it begins to shrink causing the tightening and strengthening of the tendons or ligaments of the damaged area.

What are the potential benefits?

Patients can see a significant improvement in symptoms. This may eliminate the need for more aggressive treatments such as long term medication or surgery as well as a remarkable return of function.

PRP Injection Application Sites

Spine	Middle & Lower Back	Neck	Shoulders
Elbows	Wrist & Hand	Hip/Pelvis	Knee
Lower Leg	Ankle & Foot	Arthritic Joints	

What are tendons & ligaments?

Tendons, composed of collagen fibers, connect muscle to bone making it possible for you perform every day physical activities. Overuse or damage to tendons over a long period of time causes the collagen fibers in tendons to form small tears, a condition called tendinosis. Damage most often occurs in the knee, ankle, shoulder, elbow, wrist, biceps, calf, hamstrings and Achilles tendons.

Ligaments are also composed of collagen fibers, connecting bone to bone i.e. joints: ankles, knees, shoulders, spine, etc., stabilizing the joint and controlling the range of motion. A damaged ligament is no longer able to provide support, weakening the joints and shifting the burden of support to muscles (and then to the tendons) which should primarily act as movement engines.

Tendons and ligaments have poor blood supply particularly where they connect to bone (entheses). Once injured (sprains or strains) they do not heal easily and the damage progresses with the stress of day-to-day activities. As a result the tendons and ligaments become inefficient, the muscles are over-taxed causing chronic pain and weakness and further damage. Medical intervention may be necessary.

I've heard of Cortisone Shots; is this the same?

Studies have shown that cortisone injections may actually weaken tissue. Cortisone shots may provide temporary pain relief and stop inflammation, but they do not provide long term healing. PRP therapy heals and strengthens these tendons and ligaments, strengthening and thickening the tissue up to 40% in some cases.

What can be treated?

PRP injections can be performed in tendons and ligaments all over the body. Sports injuries, arthritic joints, and more specific injuries including tennis elbow, ACL tears, rotator cuff tears, plantar fasciitis and iliotibial band syndrome may all be effectively treated with PRP.

How many treatments are necessary and how often is this therapy administered?

While responses to treatment vary, most people will require 1-3 treatments.

Is PRP right for me?

If you have a tendon or ligament injury and traditional methods have not provided relief, then PRP therapy may be the solution. The procedure is less aggressive and less expensive than surgery. It will heal tissue with minimal or no scarring and alleviates further degeneration of the tissues. There will be an initial evaluation with your doctor to see if PRP therapy is right for you.

Are there any special instructions?

You are restricted from the use of non-steroid anti-inflammatory medications (NSAIDs) one week prior to the procedure and throughout the course of treatments. Initially the procedure may cause some localized soreness and discomfort. Most patients only require some extra-strength Tylenol to help with the pain. Ice and heat may be applied to the area as needed.

The first week after the procedure, patients will typically start a rehabilitation program with physical therapy. However, aggressive physical activity is discouraged.

How soon can I go back to regular physical activities?

PRP therapy: helps regenerate tendons and ligaments but it is not a quick fix. This therapy is stimulating the growth and repair of tendons and ligaments, and requires time and rehabilitation. Through regular visits, your doctor will determine when you are able to resume regular physical activities.

Does insurance pay for PRP?

Some insurance companies, including workers compensation, may cover partial reimbursement after pre-authorization.

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