

PLATELET-RICH PLASMA (PRP) THERAPY

INTRODUCTION: For patients with chronic and acute pain, as well as athletes with sports injuries, platelet-rich plasma (PRP) therapy can be a good alternative to surgery, arthroscopy, cortisone shots, and the chronic use of nonsteroidal anti-inflammatories and narcotic pain medications. Anecdotal evidence suggests applications for soft tissue injuries and cartilage regeneration to relieve pain and related dysfunction.

HOW IT WORKS: PRP therapy is an injection technique closely akin to prolotherapy, with one key difference: the source of the solution injected into the area of pain in PRP therapy is the patient's own blood platelets.

Blood is made up of red blood cells, white blood cells, plasma, and platelets. Platelets have long been known to cause blood to clot. In the last 25 years, we have learned that they also play a role in initiating and accelerating tissue repair and regeneration. Specifically, bioactive growth and signaling proteins in the platelets cause new collagen — the material that makes up ligaments and tendons — to be deposited. Once deposited, new collagen shrinks as it matures, tightening and strengthening ligaments and tendons at the injection site.

In PRP therapy, a concentrated solution of the patient's own platelets is injected into the area of pain or injury, delivering a powerful cocktail of growth factors. In research studies and clinical practice, treatment has been shown to have lasting results. Initial improvement is usually seen within a few weeks, with patients gradually returning to normal function. Ultrasound and MRI images show definitive tissue repair after PRP therapy, confirming the healing process. The need for surgery can be greatly reduced by treating injured tissues with PRP therapy before irreversible damage occurs.

INDICATIONS: PRP therapy is effective for treating pain originating from ligaments, tendons, or joints, including pain associated with osteoarthritis, rotator cuff tears, chronic plantar fasciitis, anterior cruciate ligament (ACL) injuries, pelvic pain and instability, back and neck injuries, tennis elbow, ankle sprains, and tendonitis.

CONTRAINDICATIONS: PRP therapy is not recommended for patients who have bleeding or coagulation disorders or joint replacement in the area of the pain being treated.

TREATMENT PROTOCOLS: In PRP therapy, blood drawn from the patient is run through a centrifuge to separate the blood into components. The platelets are then harvested at a concentration five times that found in regular blood. The platelet solution is injected into the damaged tendon or muscle, inundating the area with healing cells and encouraging natural repair.

Because the treatment uses the patient's own blood, side-effects and reactions are rare. However, patients should rest immediately following the procedure, and should follow treatment with a progressive program of stretching and strengthening. Also, patients should not take anti-inflammatories within 5 days of treatment and should refrain from vigorous activity for 5 days afterward.

While response to PRP therapy varies, most people require one to three treatments spaced at least 4-6 weeks apart.

