

PRP - Platelet-Rich Plasma Therapy

What is PRP?

PRP, or "platelet-rich plasma," is a revolutionary new treatment for chronic sports and musculoskeletal injuries that is taking the sports medicine and orthopedic community by storm. Pittsburgh Steelers stars Hines Ward and Troy Polamalu credit PRP treatment for enabling them to play in the 2009 Super Bowl. Other recent press in the New York Times again describes PRP and its benefits for athletes of all types.

http://www.nytimes.com/2009/02/17/sports/17blood.html?_r=1
<http://www.nytimes.com/2009/07/23/health/nutrition/23best.html>

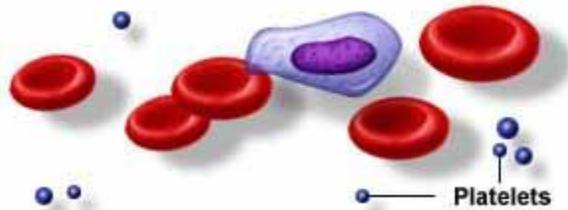
Why Does PRP Work?

Platelets are a specialized type of blood cell. Blood is made up of 93% red cells (RBCs), 6% platelets, 1% white blood cells (WBCs), and plasma.

Most people associate platelets with clot formation. While that certainly is an important function of platelets, they are also very much involved in injury healing.

Human platelets are naturally extremely rich in connective tissue growth factors.

Injecting these growth factors into damaged ligaments, tendons, and joints stimulates a natural repair process. But in order to benefit from these natural healing proteins, the platelets must first be concentrated. In other words, PRP recreates and stimulates the body's natural healing process.



Corticosteroid or "cortisone" injection, as they are commonly referred to, cannot be injected into weight bearing tendons such as the patellar tendon of the knee and Achilles tendon of the ankle because then can weaken the tendon and cause it to rupture. PRP can safely be used in these tendons without the risk of rupture.

How is PRP Done?

In the office, blood is drawn from the patient (just like getting a blood test) and placed in a special centrifuge. The centrifuge separates the RBCs, and the remaining platelets and plasma are then highly concentrated. (The WBCs, which comprise only a fraction of the total cells, go along for the ride with the platelets and plasma.) The red blood cells are discarded, and the resulting platelet concentrate is used for treatment.

In most cases the injections are given under direct ultrasound guidance to insure accurate placement of the platelet concentrate in the damaged area. The entire treatment, from blood draw, to solution preparation, to injection, takes 45 minutes.

How Often are Injections Given?

After the initial treatment, a follow up visit is scheduled 3-4 weeks later to evaluate healing progress. Some patients respond very well to just one treatment. However, 2-3 treatments may be necessary in some injuries. If multiple injections are given, injections are typically given every 3-4 weeks.

What Conditions Benefit From PRP?

PRP treatment works for **acute and chronic ligament and tendon sprains/strains** that have failed other conservative treatment, including:

- Rotator cuff injuries
- Shoulder pain and instability
- Tennis & golfer's elbow
- Hamstring and hip strains
- Knee sprains and instability
- Patellofemoral syndrome and patellar tendinosis
- Ankle sprains
- Achilles tendinosis & plantar fasciitis
- Knee, hip, and other joint osteoarthritis
- Sports hernias & athletic pubalgia
- Other chronic tendon and ligament problems

In addition, PRP can be very helpful for many cases of **osteoarthritis** (the "wear & tear" kind). PRP can help stimulate a "smoothing over" of the roughened and arthritic cartilage, reducing the pain and disability of arthritis. This includes:

- Knee arthritis
- Hip joint arthritis
- And other joint arthritis

Is PRP Covered by Insurance?

Most insurance plans, including Medicare, do NOT pay for PRP injections.

Do PRP Injections Hurt?

Because lidocaine interferes with the platelet function, it is not used during the PRP injection. Unlike a steroid injection, there may be pain for the next few days after an injection. For the days preceding the injection and for the first week after the injections it is critical to avoid anti-inflammatory medications, including Advil, Motrin, ibuprofen, Aleve, Celebrex and aspirin (unless prescribed by your heart doctor). These will interfere with the healing response. Tylenol is OK. Your doctor may prescribe pain medication also.

Are There Risks With PRP?

Anytime a needle is placed anywhere in the body, even getting blood drawn, there is a risk of infection, bleeding, and nerve damage. However, these are very rare. Other complications, though rare, vary depending on the area being treated, and will be discussed by your doctor before starting treatment. Because PRP uses your own blood adverse reactions are rare.

What is the Success Rate?

Studies suggest an improvement of 80-85%. Some patients experience complete relief of their pain. The results are generally permanent. Curr Rev Musculoskelet Med (2008) 1:165-174

To schedule an appointment with Dr. David Berkoff please call 919-962-6637
This procedure is performed at the UNC Chapel Hill Orthopaedics clinic on
Farrington Road, Chapel Hill, NC.