

What is platelet-rich plasma (PRP) used for?

Platelet-rich plasma (PRP) is used to treat tendinopathy or soft tissue injuries. The PRP sample comes from the patient's own blood, spun down and separated in a centrifuge. Using ultrasound guidance, an injection of platelet-rich plasma is placed directly into the injured body part which activates platelets, releasing growth factors. The goal is to create a healthy environment that reduces swelling and pain, and increases functionality.

Common conditions treated with PRP:

- Achilles tendon/Ankle sprain
- Bicep tendonitis
- Golfer's elbow/Ulnar collateral ligament
- Knee sprain-MCL and meniscus
- Painful/Degenerative meniscus
- Partial muscle tears (such as calf or hamstring)
- Plantar fasciitis
- Quad/Patellar tendonitis
- Relief and functional improvement for osteoarthritis
- Rotator cuff/Shoulder partial tear, bursitis
- SI joint pain/Hip bursitis
- Tennis elbow

Platelet-Rich Plasma (PRP)

Plasma (55%)

White blood cells and platelets (<1%)

Red blood cells (45%)



BayCare Medical Group Sports Medicine

Kevin Elder, MD, FAAFP

711 S. Dale Mabry Highway, Suite 303

Tampa, FL 33609

Phone: (813) 548-7890

Fax: (813) 605-6157

DrKevinElder.org

Platelet-Rich Plasma (PRP) or BMAC Cellular Therapy

What's the Difference?





What are orthobiologic injections used for?

Orthobiologic injections, sometimes referred to as stem cell therapy, are used to treat joint pain and may theoretically promote regrowth or maintenance of the cartilage in a joint. Cellular samples derived from a patient's own bone marrow are called bone marrow aspirate concentrate (BMAC). The cellular samples containing bone marrow stem cells are extracted in a doctor's office under local anesthesia, and the sample is spun down and separated in a centrifuge. Then, using ultrasound, the live stem cells are injected into the injured body part.

Common conditions treated with BMAC:

- Ankle osteoarthritis
- Hip osteoarthritis
- Knee osteoarthritis/degenerative meniscus
- More serious tendon injuries
- Shoulder osteoarthritis/labrum injuries
- Treatment of osteochondral defect

What's the difference between PRP and BMAC cellular therapy?

- Platelet-rich plasma injections don't have live stem cells in the sample. This is a common misconception that leads to confusion about the treatments.
- BMAC injections have much higher concentrations of growth factor as well as some live stem cells.
- PRP has growth factors to help reduce swelling and pain, as well as to provide healing to tendon tissue.
- True cellular injections containing live stem cells are only harvested from the patient's own body, i.e. bone marrow or adipose tissue. **Injections from dehydrated or frozen amniotic samples aren't stem cells**, although these samples do contain growth factors.
- Stem cells have the potential to regrow tissue and promote healing in joint tissue.

What are the outcomes?

Patients should treat PRP and stem cell injections like procedures and allow plenty of time to heal and the cells to activate in the body. Depending on the body part and diagnosis, more than one injection may be necessary. Most injections are followed up with physical therapy. All procedures are followed by limited activity and easing into recovery under a doctor's care.

Close clinical follow up is essential to make sure the patient is healing properly. These treatments aren't a fast-acting option and the best results require diligence. No treatment is ever 100 percent guaranteed to work. The field of regenerative medicine offers exciting options and the research continues to evolve.

Outcomes may include:

- Decreased pain and swelling
- Overall improvement in functionality
- Return to activity/sport

There is no "cure" for arthritis. The hope of these procedures is to use the patient's own blood to achieve a significant functional improvement.

Are you a candidate?

There are very few reasons why someone can't have biological treatments. A main factor in deciding to pursue treatment is that it isn't covered by insurance. The costs are in set pricing per injection. However, many patients prefer a treatment that's safe and from their own bodies to help heal an injury and improve their overall functionality.

Call our office to schedule your regenerative medicine consultation, which is covered by most insurance plans, and see if you would benefit from PRP or stem cell treatment. We'll do a complete work up and discuss the best options for you.

Dr. Kevin Elder is one of the most experienced doctors in Tampa Bay performing PRP and BMAC/stem cell treatments. He started using musculoskeletal ultrasound in 2010, and PRP injections in 2012. Dr. Elder has performed over 3,000 PRP treatments and began performing ultrasound-guided BMAC/stem cell treatment in 2017. He has seen great outcomes for his patients.



Dr. Elder's professional experience includes five years as an NFL team physician. Currently, he's a team physician for the U.S. Soccer and U.S. Ski teams. Dr. Elder also serves as an assistant team physician for USF Athletics, the Tampa Bay Rowdies, the Tampa Bay Rays, Plant High School and Berkley Preparatory School.