

Regenerative Medicine: Are You A Candidate for Bone Marrow Cell or PRP Therapy?

Dr. Michael Gitelis, MD, has helped many patients manage pain and ultimately heal faster with Autologous Bone Marrow and PRP injections. While many clinics offer these treatments, it is important to choose a board-certified physician who will review your medical history and present all of the options to help you eliminate your pain. Not all regenerative therapies are the same; technique and physician experience matter. Dr. Gitelis wants you to know the truth about regenerative medicine and orthobiologics. During your consultation he will take the time to answer all of your questions and explain the potential benefits of these treatments.

PRP

PRP is Platelet Rich Plasma and this plasma is found in the patient's own blood and extracted with a simple blood draw and blood processing. The result is a potent mixture of cells and plasma that can be used to re-inject into the area of injury. There are many studies that support the efficacy of using PRP to reduce inflammation and pain. A recent compelling study was done by Dr. Patrick A. Smith in 2016 in accordance with the FDA. This study asserts that PRP is a safe treatment that provides significant pain relief for patients with osteoarthritis. After one year pain scores improved by 78% of the baseline score for patients who received PRP injections while scores in the placebo group only improved by 7%. (Smith 2016 884-891).

Bone Marrow Derived Cells

Healing cells, are also found in adult bone marrow. In order to extract adult bone marrow an experienced surgeon must perform a minor procedure to aspirate and process the marrow. These cells are then reinjected into the site of injury. While there are more published studies on the use of PRP, there are recent studies that support the use of autologous bone marrow cells for certain orthopedic problems. Some of the most compelling results are found in a study by Dr. Phillipe Hernigou on the use of bone marrow cells with rotator cuff repair. He found that after six months, 100% of patients who received bone marrow treatment had healed while only 67% of patients healed without bone marrow cells. After ten years, 87% of patients who received bone marrow cells had intact rotator cuffs while only 44% of those without bone marrow cells remained intact, (Hernigou, et al. 2014 1811-1818). There are many other bone marrow cell studies currently underway.

Citations

Smith, Patrick A. "Intra-Articular Autologous Conditioned Plasma Injections Provide Safe and Efficacious Treatment for Knee Osteoarthritis." *The American Journal of Sports Medicine*, vol. 44, no. 4, Apr. 2016, pp. 884–891. Pubmed.gov, doi:10.1177/0363546515624678.

Hernigou, Phillipe, et al. "Biologic augmentation of rotator cuff repair with mesenchymal stem cells during arthroscopy improves healing and prevents further tears: a case-controlled study." *International Orthopedics*, vol. 38, no. 9, July 2014, pp. 1811-1818. Pubmed.gov, doi:10.1007/s00264-014-2391-1.