

## **Advanced Regenerative Medicine Techniques**

Using The Healing Cascade Within You

A living organism is constantly replacing its cells and rebuilding its structure in a complex process that requires removing older tissues and replacing them with new tissues. The regeneration of new tissue is facilitated by stem cells and fostered by growth factors and hormones. The cells needed for repair and rejuvenation exist in all of our tissues, ready to be spurred into action when needed.

The platelets in your blood contain a multitude of different growth factors that initiate and control the healing process. Blood, bone marrow and fat contain specialized cells that orchestrate the healing of injured and degenerative tissues. A small amount of the patient's own growth factors and cells placed precisely into an injured tendon, ligament, or joint initiates the healing process by stimulating the nearby healing cells to turn on and begin the repair process.

Platelet-Rich Plasma (PRP) uses the power of platelets from your own blood. Bone Marrow Aspirate Concentration (BMAC) uses the healing Mesenchymal Stem Cells (MSC's) that are contained within your bone marrow. Platelet Lysate (PL) is an advanced form of PRP that is produced by activating the platelets in PRP so that the growth factors contained in the platelets can be captured and used for healing of nerve injuries and inflamed joints and spinal disks. Each of these offers the potential of stimulating your body to repair itself.

These advanced techniques only require local anesthetic, for a procedure that has very minimal discomfort. The concentrated platelets and healing cells are precisely and safely injected into the site to be repaired. The entire process can take one to two hours on the same day. The site of injection will likely be moderately painful for several days or potentially up to a week or more. The process may be repeated several times to achieve the desired benefit of pain reduction, joint strengthening, ligament and tendon repair, and improved function over about 4-6 months. Insurance does not typically cover the procedure.

The specialty of Regenerative Medicine takes advantage of the body's natural reparative processes to direct healing capabilities to sites of severe injury or degeneration, to promote a directed repair and rejuvenation of the region. Increasing the bioactivity at the injured site takes medicine one step closer toward its ultimate goal of naturally accelerating the body's normal healing process.