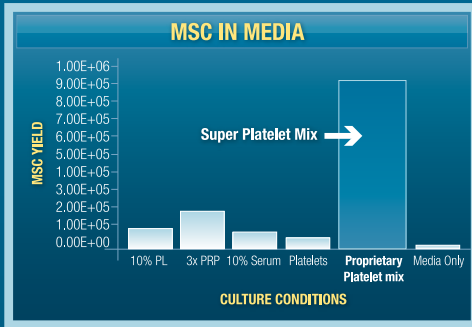


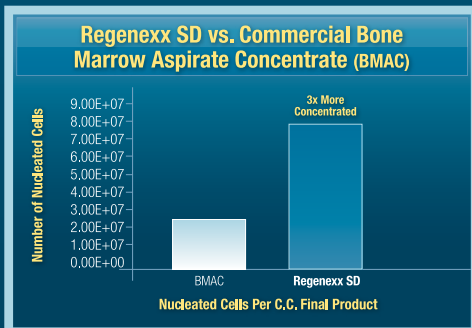
## WHAT IS A "SUPER PLATELET MIX?"

Many practices have begun using PRP or platelet rich plasma. When we tried using PRP in the lab to grow mesenchymal stem cells (MSC's), it generally underperformed other types of platelet preparations. By choosing a type of platelet mix that can't be made in bedside centrifuges, we were able to document more explosive growth in stem cells in culture. This same type of platelet mix is used in Regenexx-SD.



## WHY IS REGENEXX-SD BETTER THAN A BEDSIDE MACHINE?

The nucleated cell portion of the bone marrow aspirate is the fraction where the stem cells live, so the higher the number the better. The Regenexx-SD process produces about 3 times more of these important cells per cc injected. This is because a machine is a one size fits all solution that doesn't adjust the parameters to customize the processing to the sample. Since we have cell biologists preparing the sample, the Regenexx-SD process can get to the highest concentration per volume injected. Is this important? Many studies have shown that exact placement of stem cells in a joint (or in other areas like the heart) is very important, so having more cells in a specific spot may make a big difference for patients.



Because the company would only allow us to sample two of the very expensive, bedside centrifuge kits, this is an n=2 result. MSC's obtained calculation: (2.45 x 10 exp 7 for the bedside machine and 7.74 X 10 exp 7 for the Regenexx-SD lab)



# Regenexx-SD Procedure™

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## The Regenexx-SD Procedure

The Regenexx orthopedic stem cell procedure has always stood for the world's most advanced Regenerative Medicine practice. The Regenexx difference is that our medical practice has a state of the art lab with cell biologists creating custom solutions for our patients, rather than a "one size fits all" solution created by a bedside centrifuge. As a result, we've always done everything differently, from PRP to marrow cell concentrates (BMAC) to stem cells. Regenexx-SD is the latest addition to the Regenexx family of stem cell solutions.



## How does it work?

Regenexx-SD is a same day isolation of mesenchymal stem cells and new blood vessel forming hematopoietic stem cells. We then combine that with a proprietary super platelet mix that's been shown in the lab to make mesenchymal stem cell growth explode.



*"The Regenexx difference is that our medical practice has a state of the art lab with cell biologists creating custom solutions for our patients, rather than a "one size fits all" solution created by a bedside centrifuge."*

## What should I expect?

The procedure begins in the morning with a "minidraw" where the patient has cells harvested by a clinic physician. The back of the hip is numbed and a small amount of bone marrow aspirate is taken. The patient then gives a small blood sample. These samples are taken to our lab and processed. The patient returns that afternoon for reinjection into the injured area. Either fluoroscopy or musculoskeletal ultrasound is used to re-inject the stem cells into a specific area. Re-injections can be as soon as 6 weeks. We recommend that most patients will need 2-4 injection cycles.

## How safe is this procedure?

We have followed many patients both clinically and with multiple high field MRI's to ensure that this type of stem cell procedure is safe. We have the longest running clinical experience with adult mesenchymal stem cells of any medical practice in the US. In addition, your cells are grown by specially trained biologists in a state of the art, positive pressure, cell culture environment that is certified by the International Cellular Medicine Society.

## Who is a candidate?

- ▶ Osteoarthritis of the knee, hip, ankle, shoulder, hands
- ▶ Patients with non-healing bone fractures
- ▶ Certain types of injuries to the meniscus, hip labrum, shoulder labrum, shoulder SLAP lesions
- ▶ Tendon injuries such as partial rotator cuff or other partial muscle-tendon tears
- ▶ Avascular Necrosis of the hip, shoulder, knee, ankle

## Does the Research Show that Stem Cells can Heal Orthopedic Injuries?

Yes, many studies have confirmed that the types of stem cells isolated by Regenexx-SD can help heal cartilage, non-healing bones, meniscus, ligaments, and tendons.

## Can I store extra cells for future use?

Yes, if we take more cells than are needed for your treatment, the extra cells can be saved indefinitely in cryo storage. Note that mesenchymal stem cells have also been used in many studies to treat cardiac, vascular, and other serious health conditions.

