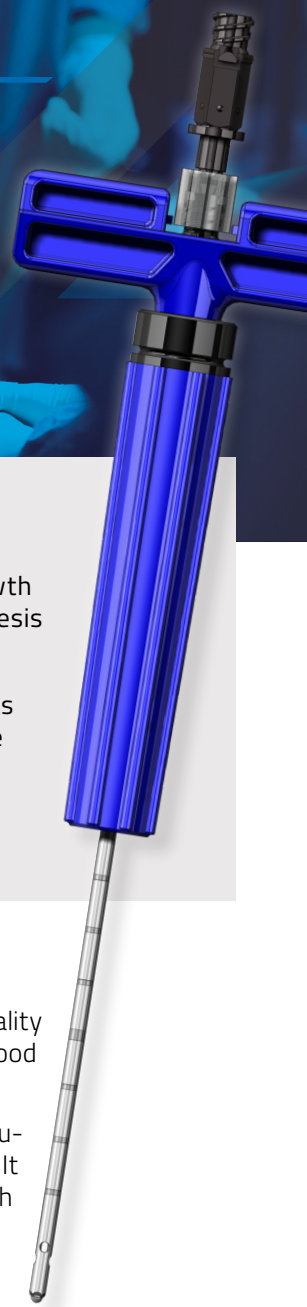
ASPIRE MEDICAL INNOVATION

Patient Information:

MARROW CELLUTION™

Optimized Bone Marrow Harvesting for Regenerative Therapies



The Power of Bone Marrow Derived Cells

Bone Marrow Aspirate (BMA), comprised of a complex blend of nucleated cells, platelets and growth factors, is known to aid in the healing of a variety of orthopedic injuries and to promote angiogenesis in ischemic tissue.

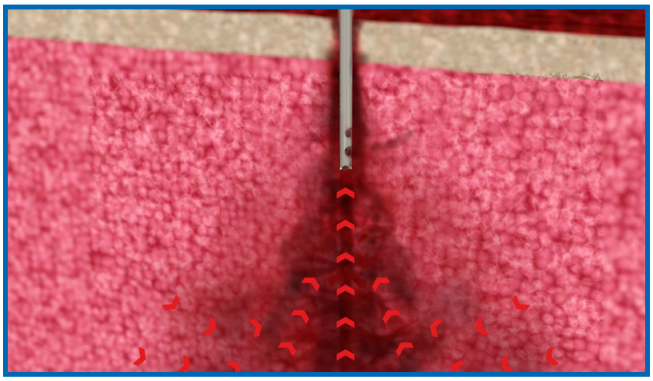
Therapies utilizing Bone Marrow Aspirate have been shown to promote bone and soft tissue healing as well as reduce symptoms of pain related to injuries, tendinitis and arthritis. Successful outcomes have been shown to be directly related to the quality and quantity of stem cells delivered.

Marrow Cellution™ maximizes the concentrations of these valuable cells.

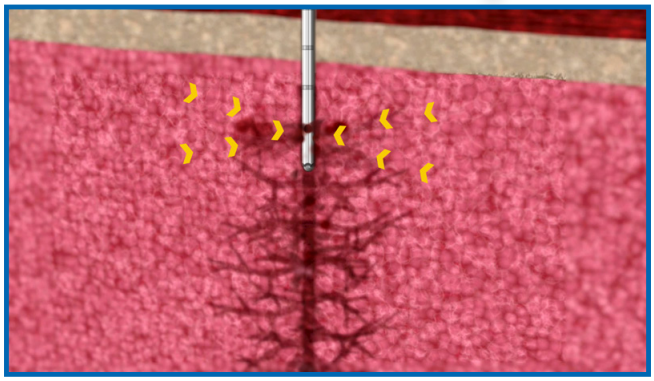
What is Marrow Cellution™?

The Marrow Cellution™ bone marrow aspiration device uses patented technology to harvest high quality stem and progenitor cells from various levels within the marrow space, while limiting peripheral excess blood infiltration.

Marrow Cellution™ accesses aspirate flow collected exclusively laterally as the tip of the aspiration cannula is closed, allowing marrow collection perpendicular to and around the channel created by the device. It incorporates technology to precisely reposition the harvesting cannula within the marrow space after each aspiration. These features achieve a clinician's and patient's desire for a single entry point.

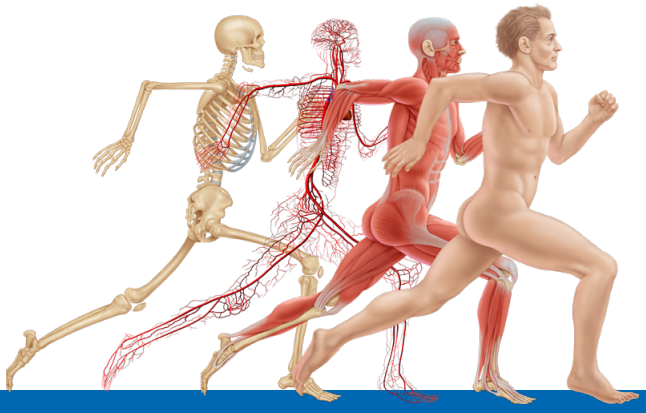


Traditional Aspiration
A traditional trocar needle aspirates primarily distally (from needle tip) increasing peripheral blood collection, which limits the regenerative potential.



MARROW CELLUTION™
Marrow Cellution™ aspirates exclusively laterally from multiple geographies therefore limiting peripheral blood collection, maximizing the collection of valuable stem cells.

The total number of stem cells attained with the Marrow Cellution™ system is roughly 28,000, which represents a significant level of progenitor/stem cells that is in line with concentrations found in published studies that have shown therapeutic success in inducing beneficial vasculogenesis, reducing disc pain, treating hip osteonecrosis and ameliorating cartilage defects.



Injuries often treated with Bone Marrow:

Knee Pain
Osteoarthritis, Meniscus Tears (Medial, Lateral), Chondromalacia Patella, Tendon Injuries (Patellar Tendonitis, Quad Tendon), Ligament sprains or tears (MCL, LCL, ACL)

Hip Pain
Osteoarthritis, Hip Labrum Tears, SI Joint Dysfunction, Piriformis Syndrome, Greater Trochanteric Bursitis, Iliotibial Band (ITB) Syndrome

Shoulder
Osteoarthritis, Rotator Cuff Tendinitis, Tendinopathy, Partial Tears, Labrum Tear, Bicipital Tendinitis

Elbow Pain
Lateral Epicondylitis (Tennis Elbow), Medial Epicondylitis (Golfers Elbow)

Wrist/Hand Pain
Osteoarthritis, De Quervain's Tenosynovitis

Ankle & Foot Pain
Achilles Tendinitis, Partial Tears, Plantar Fasciitis, Ankle Sprains/Ligament Injury

Spine
Facet Joint Arthropathy, Sacroiliac (SI) Joint Dysfunction

Vascular
Peripheral Vascular Disease, Diabetic Wounds, Bürgers Disease

The Patient Experience

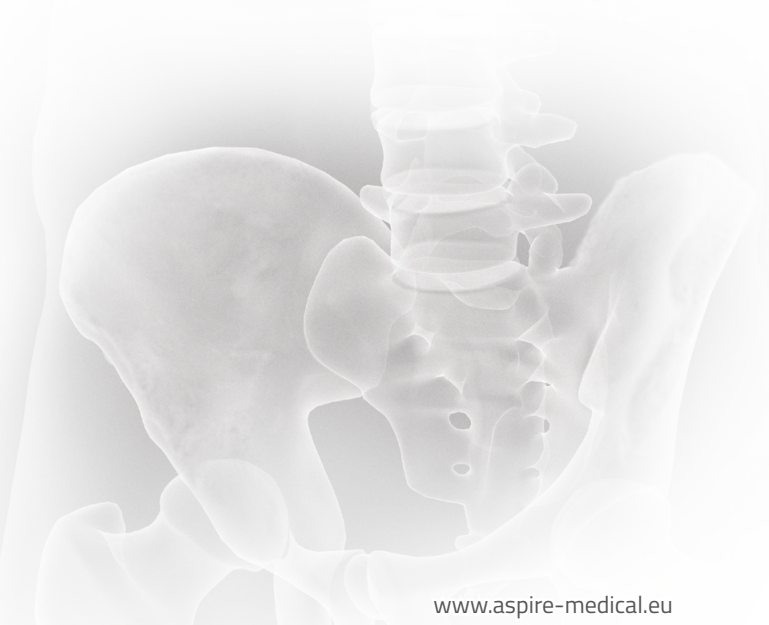
How is it done?
Local anesthesia will be applied to the soft tissue and bone. Your bone marrow will be aspirated through a small needle puncture in your posterior or anterior iliac crest (pelvic bone) with a specialized device, Marrow Cellution™, which will harvest high concentrations of your body's stem cells, platelets and growth factors. The Bone Marrow Aspirate will be collected into a sterile syringe and injected into the targeted treatment area of the body.

What can you expect?
Patients may experience mild soreness at the collection site for a couple of hours and from the treatment site for a few days following the procedure. Most patients will begin to see clinical improvement approximately 1 to 2 months after treatment has been completed. Increased stability and strength are typically reported along with a decrease in pain. Recovery time and outcome will be dependent upon the structure treated and how chronic the problem.

What are the risks?
The risks of therapies utilizing BMA are extremely low but as with any procedure, there are possible risks and complications. Although very unlikely, any injection can potentially cause bleeding, increased pain, infection or nerve damage. Because your own cells are being utilized, there is no risk of tissue rejection of the cells.

Is Bone Marrow Therapy covered by Insurance?
While there are currently several publications in peer-reviewed medical journals showing the efficacy of Bone Marrow therapy on tendon, soft tissue, and cartilage injuries, procedures utilizing Bone Marrow Aspirate are still not covered by most insurance companies at this time.

ASPIRATION 2 APPLICATION



Sources:

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Overcome Aspiration Limitations & Maximize Cell Yield