The science of regenerative medicine focuses on accelerated healing, regeneration of tissue and the restoration of normal function. Regeneration of damaged tissue can be accomplished by stimulating the body’s own repair mechanisms and regenerative cells, such as adult mesenchymal stem cells, which have the ability to differentiate into a variety of cell types including muscle, bone, tendon, ligament and cartilage. These cells have also been shown to secrete bioactive factors that speed up the healing and regeneration processes for these various types of tissue, which means patients may resume normal activities in a shorter period of time.¹

**CASE REPORT**

**PATIENT:** 56-year-old female

**COMPLAINT:** Pain in left Achilles tendon - Patient reported a painful “knot” in her left Achilles tendon. The pain limited her ability to perform daily activities such as shopping or being up on her feet for longer than 30 minutes. She had been an active tennis player and recreational athlete, but had not been able to play tennis or jog for ten years. She reported significant pain when relaxing and great pain when walking. The patient had been to multiple physicians and had followed ten years of standard treatment with stretches and anti-inflammatory drugs. She refused multiple offers of invasive surgery that could not promise a return to tennis.

**DIAGNOSIS:** On physical examination, the patient had a large, palpable knot in the Achilles tendon, very noticeable and acutely tender. An MRI scan showed severe hypertrophic changes with marked tendinopathy.

**PROCEDURE:** The patient received one stem cell therapy treatment in her physician’s office as an outpatient point-of-care procedure using Biologic Therapies products. The physician aspirated bone marrow from her tibia (shin) bone, processed the marrow in a centrifuge to concentrate the regenerative stem cells and growth factors, then injected the bone marrow aspirate concentrate into and around her Achilles tendon. An injection of local anesthesia was given to prevent pain. The patient reported little to no pain during or after the procedure.

**RESULT:** After six weeks the patient reported no pain at rest and minimal pain while walking. After eight weeks, there was even less pain while walking. The knot was less than 50% of the pre-treatment size and was relatively non-tender to touch. She was back to playing tennis without significant pain or difficulty. After ten weeks the patient was doing much better. An MRI scan showed even more reduction in the size of the knot, and pain was reduced even further. After 32 weeks an MRI scan showed near complete healing of the treated tendon. See the entire case report at - [http://www.cellr4.org/article/1100](http://www.cellr4.org/article/1100)
You may heal faster, get back in action quicker, and relieve pain with Regenerative Cell Therapy

A REVOLUTION IN MEDICINE
Our facility offers a minimally invasive medical breakthrough known as Regenerative Cell Therapy. Using products from Biologic Therapies, we draw bone marrow in what has been described by some patients as a virtually painless procedure. We then process the marrow to concentrate the desired cells and growth factors that work to accelerate healing and regenerate tissue. The concentrated cells and growth factors are then given back to the patient at the site of injury to help accelerate healing, restore function and eliminate pain.\(^1,2,3\)

Regenerative Cell Therapy has been shown to enhance the body’s ability to heal itself naturally. Our point-of-care treatment utilizes a patient’s own regenerative cells and growth factors to help renew, repair and restore damaged bodily tissues including muscle, bone, tendon, ligament and cartilage. These cells have also been shown to help the body regenerate new cartilage and relieve arthritis pain.\(^3\)

Our Regenerative Cell Therapy treatment offers a viable alternative to patients who are facing surgery due to injury or are suffering from chronic pain. The treatment may increase mobility, restore function and provide freedom from chronic pain to help delay or even prevent further joint destruction and the need for surgery or total joint replacement.\(^3\)

POSSIBLE BENEFITS OF REGENERATIVE CELL THERAPY:\(^1,2,3,4\)
- Renew, repair and promote healing
- Promote new tissue growth
- Promote quicker restoration of function
- Reduce or eliminate pain
- Antimicrobial agents prevent infection
- Anti-inflammatory agents reduce swelling

NATURAL TREATMENT FOR JOINT PAIN
Regenerative Cell Therapy can be a highly effective treatment for pain from injury or degenerative bone disease. As an alternative to surgery or joint replacement, our procedure is minimally invasive and is performed right here in this medical facility with no general anesthesia required. Patients experience little to no down time from the procedure, which normally takes about 30 minutes to perform. Ask your physician to tell you more about it.

WHAT CONDITIONS MAY BENEFIT?\(^1,2,3,4\)
- Bone fractures & degenerative disease
- Rotator cuff injuries, shoulder pain & instability
- Tennis and golfer’s elbow
- Tendon, ligament and muscle rips & tears
- Hip, knee and ankle sprains & instability
- Patello-femoral syndrome
- Patellar and Achilles tendinosis
- Plantar fasciitis
- Osteoarthritis in the knee, hip & other joints
- Burns, wounds & more - Consult your physician

IS TREATMENT COVERED BY INSURANCE?
Check with your individual plan. Most insurance plans, including Medicare, do not cover all costs involved, but may cover some. Please ask your physician for more information on this topic.

DOES THE TREATMENT HURT?
The bone marrow aspiration site and the stem cells injection site are numbed with a local anesthetic so there is little to no pain from the insertion of a needle.

ARE THERE ANY RISKS?
Any time a needle is placed in the body there is a risk of infection, bleeding and nerve damage. However, these occurrences are extremely rare.

WHAT IS THE SUCCESS RATE?
A study on Anterior Cruciate Ligament (ACL) surgery showed healing time decreased from an average of 369 days without cell therapy to only 179 days with it - a reduction of almost 50%.\(^4\) Studies on healing of other injuries show 100% healing with increased function and complete relief from pain.\(^3\) Ask your physician how Regenerative Cell Therapy may benefit you.

References
1 Murphy, Moncivais, Caplan; Exp Mol Med. 2013 Nov; 45(11): e54
3 Leal; Adult Stem Cell Treatment, Palisades Medical Center, Case Report (2007)
4 Radice, Yanez, et al; Journal of Arthrology and Related Surgery Vol 26, 1, Jan 2010; 50-57

NATURAL TREATMENT FOR JOINT PAIN
Regenerative Cell Therapy can be effective for people of all ages. The body’s own regenerative cells and growth factors may accelerate healing naturally.

IS TREATMENT COVERED BY INSURANCE?
Check with your individual plan. Most insurance plans, including Medicare, do not cover all costs involved, but may cover some. Please ask your physician for more information on this topic.

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