

VOL. 2 | NOVEMBER 2024

STAY IN THE GAME



Newsletter for all our Form & Function Family



Healing Heroes: Stem Cells and the Search for Joint Relief

Stem cell therapy is revolutionizing the way we address joint health, presenting a promising avenue for individuals facing degenerative conditions such as osteoarthritis and tendon injuries. By tapping into the unique regenerative properties of stem cells, this therapy offers the potential not only to repair damaged tissues but also to enhance the body's own healing mechanisms.

Stem cell therapy has emerged as a promising approach for treating joint-related issues, offering hope to individuals suffering from degenerative conditions such as osteoarthritis, tendon injuries, and cartilage damage. The unique ability of stem cells to repair and regenerate damaged tissues is what makes this treatment so revolutionary. In this blog, we will explore how stem cells function within the body, specifically in the context of joint repair, and what potential they hold for those dealing with chronic joint pain.

OVERVIEW:

- Healing Heroes: Stem Cells and the Search for Joint Relief
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A newsletter to our entire Form and Function Family to keep you updated on all the happenings in the clinic and to share helpful, entertaining information about your health and wellness. Find helpful tips and tricks on staying active and staying in the game, the game of life that is! We hope you enjoy this month's issue of Stay In The Game.

What Are Stem Cells?

Stem cells are undifferentiated cells that have the extraordinary ability to develop into different types of cells and tissues in the body. In joint repair, two types of stem cells are often utilized: mesenchymal stem cells (MSCs) and induced pluripotent stem cells (iPSCs). MSCs are most commonly sourced from bone marrow or fat tissue and are known for their ability to transform into cartilage, bone, or muscle tissue, which makes them an ideal candidate for joint regeneration. iPSCs, which are adult cells reprogrammed to behave like embryonic stem cells, also hold promise but are less commonly used in clinical settings due to ethical and regulatory concerns. Stem cells don't just replace damaged cells; they also secrete bioactive molecules that help regulate inflammation and stimulate the natural repair processes of surrounding tissues. This dual

action—replacing lost or damaged cells while encouraging the body's own repair mechanisms—gives stem cells their regenerative power.

How Stem Cells Repair Joint Tissue

When it comes to joint health, the primary targets of stem cell therapy are often cartilage, ligaments, tendons, and other connective tissues. Joints, especially load-bearing ones like knees and hips, are prone to wear and tear over time. Cartilage, which cushions the bones and allows smooth movement of the joint, doesn't regenerate easily, leading to problems like osteoarthritis. This is where stem cells come into play.

Upon injection into the affected joint, stem cells migrate to the damaged area and begin a process called "differentiation," where they develop into specific types of cells required to repair the tissue. For instance, in cartilage damage, MSCs can

differentiate into chondrocytes, which are the cells responsible for creating cartilage. By replenishing the supply of chondrocytes, stem cells help regenerate cartilage and restore joint function. Moreover, stem cells release growth factors and cytokines that reduce inflammation, alleviating pain and further protecting the joint from additional damage.

The Impact of Stem Cells on Inflammation and Healing

One of the most significant benefits of stem cells is their ability to modulate inflammation, which is a major cause of joint pain and degradation in conditions like arthritis. Chronic inflammation not only damages joint tissues but also hampers the body's ability to heal. Stem cells produce anti-inflammatory molecules, helping to reduce the swelling and discomfort commonly associated with joint injuries and degenerative diseases.

Furthermore, stem cells

Benefits of PEMF

There are both short term and long term benefits of PEMF therapy. Short form transformation benefits include:

- Alleviation of pain and inflammation
- Enhanced range of motion
- Swift recovery of functional abilities
- Prevention of muscle atrophy post-surgery
- Strengthened ligaments
- Expedited healing of skin wounds and nerve regeneration
- Utilizing guided PEMF therapy can also have extended benefits that include:
- Boosted energy, circulation, and oxygenation of blood and tissue
- Improved sleep quality, blood pressure, and cholesterol levels
- Balanced immune system and accelerated cell regeneration
- Muscle relaxation

As you can see, there are many benefits of utilizing PEMF therapy and the experts at Form & Function PT are happy to help you realize them through our guided PEMF therapy.

enhance the body's healing capabilities by promoting angiogenesis—the formation of new blood vessels. This increased blood flow improves the delivery of nutrients and oxygen to the damaged tissue, speeding up the healing process. The natural release of growth factors by stem cells also recruits other cells in the body that aid in tissue repair, amplifying the overall regenerative effect.

Are Stem Cells a Viable Solution for Joint Pain?

Stem cell therapy is still considered an experimental treatment for joint repair, with ongoing studies assessing its long-term efficacy and safety. While many patients have reported significant pain relief and improved mobility after treatment, results can vary depending on the individual and the severity of the joint damage. Factors such as the source of the stem cells, the technique used for harvesting and injecting

them, and the patient's overall health can influence outcomes.

The treatment may not be a complete cure for degenerative joint conditions, but it offers a minimally invasive alternative to surgery, with the potential for fewer side effects and shorter recovery times. For individuals seeking to avoid joint replacement surgery or those looking for an option when traditional treatments like physical therapy and medication have failed, stem cell therapy presents a cutting-edge option worth considering.

The Future of Stem Cell Therapy in Joint Health

As research progresses, stem cell therapy may become a more standardized treatment for joint repair. Scientists are continually working to refine the techniques for harvesting, culturing, and delivering stem cells to maximize their effectiveness.

Advanced therapies, such as combining stem cells with biomaterials or growth factors, are also being

explored to enhance tissue regeneration even further.

While stem cell therapy is not yet widely accessible and can be costly, its potential to repair and regenerate damaged joints could revolutionize the way we treat musculoskeletal conditions. For now, those considering stem cell therapy should consult with a healthcare provider to determine if they are a suitable candidate and to weigh the potential benefits and risks.

Stem cell therapy represents an exciting frontier in joint repair and regeneration. By harnessing the body's own healing power, stem cells offer a minimally invasive solution for treating degenerative joint conditions and injuries. Though more research is needed to fully understand their long-term potential, stem cells are already providing relief and improved quality of life for many individuals struggling with chronic joint pain. With further advancements, stem cell therapy may soon become a go-to treatment for joint preservation and recovery, helping people stay active and pain-free well into the future.

Product We Love



Joint NutraCare

The #1 supplement to Feel Your Best at Any Age Stop Joint Pain, Swelling & Stiffness Without Harmful Side-Effects No Matter Your Age Or How Bad Your Joints Why Joint NutraCare stands apart from other supplements on the market?

REVOLUTIONARY ALL-NATURAL SUPPLEMENT

Joint Nutra Care is a revolutionary supplement that helps your body feel better and younger all naturally. The combination of ingredients provides long lasting benefits that include:

- Improve joint comfort by providing the building blocks for joint cartilage and ligaments
- Naturally reduce inflammation
- Reduce wrinkles and improve skin health
- Naturally improve hormone levels
- Improve bone density
- Increase antioxidant levels to help reduce aging
- And many more health benefits...

Promos of the Month

BIGGEST DISCOUNTS OF THE YEAR

BLACK FRIDAY

4 Sessions, 30 Minutes-\$840

9 Sessions, 30 Minutes-\$1800 (Buy 8 Get 1 Free)

18 Sessions, 30 Minutes-\$3200 (Buy 16 Get 2 Free)

**25% Off Joint
NutraCare For First
Time Buyers On the
Website**



Patient of the Month

Brian Isbell



Check Out Brian's Business!



This month's patient spotlight shines on one of our current patients Brian Isbell. Brian owns a company that specializes in mineral blasting pools, spas and fountains waterline and up, removing unsightly calcium and grime that builds up over the years. He self admittedly said he stayed out in the field way too long enduring the physical labor for many years, and between that and his very physical lifestyle of gym sessions, snowboarding, biking, sand volleyball and bowling, his activities have taken a major toll on his body. Despite remaining fit and active and pain free until his late forties, the wear and tear finally caught up to Brian, and he had both of his bone on bone hips replaced. Not long after recovering from his second hip replacement his lower back became a real problem. Having gone the surgical route for his hips he was determined not to be operated on again, so he found himself at the renowned Cellular Performance Institute for stem cell injections. CP| (as it is known) advised him to seek hands-on physical therapy soon after his injections and when the offices near San Diego that CP| was familiar with were too far for follow up, he tried local PT offices, but they were unfamiliar with post stem cell patient PT protocol leaving him in pain and was not sure that was the right treatment for him. That's when he found Form and Function PT. From work, play, surgeries and working out, Brian developed an incredible amount of stiffness and pain in his hips and lower back, and through rigorous sessions at Form and Function, we have seen a slow transformation of rigid stiffness turn to near normal mobility. He's back to bowling in his league, and while there are still some bad days, his consistent sessions of PT have him leaving with relief, and confidence that he can avoid a dangerous back surgery. If your pool tiles are looking a little shabby and are in need of some TLC, reach out to Brian's company Precision Pool Tile Cleaning at 1-888-300-8453 or check them out on the web. www.pooltilecleaning.com

Health Tip & Trick: Reduce Joint Pain by Avoiding Inflammatory Foods

By: Trevor Field

One simple yet powerful way to manage joint pain is by adjusting your diet to reduce inflammation. Certain foods can trigger inflammation in the body, which can worsen joint pain, especially in conditions like arthritis. To ease discomfort, try to limit or avoid processed foods, sugary snacks, and refined carbohydrates, which can contribute to inflammation. Instead, focus on incorporating anti-inflammatory foods such as fatty fish (rich in omega-3s), leafy greens, berries, and nuts. These foods help reduce inflammation and can support overall joint health, keeping you more mobile and pain-free!

Some common inflammatory foods that can contribute to joint pain and inflammation include:

1. Processed and Sugary Foods:

- Sugary snacks, desserts, and beverages (like soda and candy) increase inflammatory markers in the body.

2. Refined Carbohydrates:

- White bread, pastries, and other foods made with refined flour can cause spikes in blood sugar, leading to inflammation.

3. Fried and Fast Foods:

- Foods high in trans fats, such as fried items and fast food, promote inflammation and increase the risk of chronic conditions.

4. Red and Processed Meats:

- Beef, pork, and processed meats (like bacon, sausages, and deli meats) contain compounds that trigger inflammation.

5. Excessive Alcohol:

- High alcohol consumption can increase inflammation and worsen joint pain over time.

6. Vegetable Oils High in Omega-6 Fatty Acids:

- Oils like corn, sunflower, and soybean oil, which are high in omega-6 fatty acids, can contribute to inflammation when consumed in excess.

Reducing or avoiding these foods can help manage inflammation and reduce joint pain.



Recipe We Love

Pumpkin Bars



Ingredients

- 1 1/2 cups whole wheat pastry flour
- 1/2 cup almond flour
- 2 teaspoons baking powder
- 1 teaspoon baking soda
- 2 teaspoons pumpkin pie spice
- 1/2 teaspoon cinnamon
- 1/2 teaspoon salt
- 3 eggs, lightly whisked
- 1/4 cup milk of choice
- 1/2 cup maple syrup
- 1 1/2 cups 100% pumpkin puree

For Cream Cheese Frosting:

- 1 8 oz package 1/3 less-fat cream cheese, softened
- 1/4 cup maple syrup
- 1 teaspoon vanilla extract
- 2 to 3 teaspoons milk of choice

How to Make Pumpkin Bars

1. Preheat oven to 350 degrees F.
2. In a large bowl, whisk together flours, baking soda, baking powder, pumpkin spice, cinnamon and salt. Set aside.
3. In a separate bowl, whisk together eggs, milk, maple syrup and pumpkin puree and stir until well-combined.
4. Pour the wet ingredients in with the dry ingredients, mixing until just combined.
5. Pour pumpkin mixture into a prepared 9×9-inch baking dish and bake in the oven for 30 to 35 minutes, or until a toothpick inserted in the center comes out clean.
6. Let the pumpkin bars sit for 5 minutes then remove from pan and let cool completely on a wire rack.
7. While the bars are cooling, add cream cheese, maple syrup and vanilla extract to the bowl of your stand mixer (or you can use a hand mixer) and whip on high until smooth. Add the milk a teaspoon at a time until you have your desired creaminess.
8. Evenly spread cream cheese frosting over the bars once they have cooled completely, top with a little extra pumpkin pie spice and cut into 16 pieces. Enjoy!

Nutrition

- Serving: 1bar
- Calories: 186kcal
- Carbohydrates: 26.3g
- Protein: 6.8g
- Fat: 7.1g
- Saturated Fat: 2.4g
- Sodium: 271mg
- Fiber: 4g
- Sugar: 7.1g