MARKETING FEATURE

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Stem Cell Therapy: The Future for Treatment of Orthopedic Injuries



Spotlight



Dr. Joanne Halbrecht and Boulder Regenerative Medicine have been making headlines recently for her pioneering use of stem cell therapy. (Photo: Boulder Institute for Sports Medicine).

Stem Cell Therapy: The Future for Treatment of Orthopedic Injuries

An interview with local board certified orthopedic surgeon, Dr. Joanne Halbrecht, sheds light on the myths, science and future of stem cell therapy.

By L.L. Charles

Boulder is well known as an international sports mecca. It is home to Bolder Boulder, the second largest citizens' race in the nation. Ironman calls Boulder "America's most triathlon-centric town." But where there are epic sports, there will be significant sports injuries.

Thankfully, our town is also home to Dr. Joanne Halbrecht and the world-class Boulder Institute for Sports Medicine, founded in 1995 to provide state-of-the-art treatment of sports injuries, arthritis and injuries to ligaments, tendon and cartilage.

The Boulder Regenerative Medicine division has been making headlines recently

for its pioneering use of stem cell therapy that stimulates our bodies' own natural rejuvenation of damaged or injured tissue.

Dr. Halbrecht is the most experienced and knowledgeable orthopedic surgeon in Boulder County in regenerative medicine and stem cell therapy. Her innovative work has

gained her a worldwide reputation as an expert in this area of medicine.

We recently had the opportunity to sit down with Dr. Joanne Halbrecht and learn about the excellent results that stem cell therapy delivers, and how it allows many patients to avoid surgery altogether.

"There are many misconceptions around stem cell therapy," Dr. Halbrecht says. "We don't use embryonic stem ⁶⁶ The results and potentials of regenerative medicine are truly amazing. I foresee using stem cells for acute injuries where they are injected to the site of injury to accelerate healing and prevent future problems such as arthritis or instability.⁹⁹

cells in the U.S. We use an FDA-compliant method to harvest the patient's own cells. The cells are processed and then injected into the injured area. The whole process is done in our office using local anesthetic and only takes about one hour.

Stem cell therapy treats the causes of your pain, not the symptoms. The cells act like little "drug stores" in the body, seeking out inflammation and injuries and promoting blood flow to those areas. They can also inhibit scar tissue formation. The cells are anti-inflammatory and more powerful than a steroid injection.

"A very impressive study followed rotator cuff repair patients for ten years, revealing that the patients who received stem cell injections at the time of their surgery had an eighty-seven percent success rate," Dr. Halbrecht explained. "Patients who did not have stem cell injections showed a mere forty-four percent rate of success in healing."

Our interview with Dr. Halbrecht also offered these insights on the facets of stem cell therapy and its potential.



MORNING DRIVE

Dr. Halbrecht was recently featured on 9News in Denver, discussing her groundbreaking work in stem cell therapy. (Photo: Boulder Institute for Sports Medicine)

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Dr. Halbrecht developed an early interest in the emerging technology of stem cell therapy

"As an orthopedic surgeon with an undergraduate degree in engineering, I have always embraced cutting-edge technology," she says. "When human studies first appeared in the literature showing the benefits of stem cell therapy for orthopedic pathology, I was intrigued and began researching the topic." Today she is an internationally known authority on stem cell therapy. She has appeared on CBS television's American Health Front and is sought out by patients and consumer groups alike for her knowledge and insight.

The diagnosis and timing of treatment are important

The injury diagnosis and timing of stem cell therapy both play key roles in a successful outcome. For instance, there are no studies that show when there is a complete rotator cuff, ACL or meniscus tear, the injury will heal with stem cell therapy alone. Patients may experience pain relief, but the tear will still be present. Stem cell therapy does have the potential to regenerate meniscus and avoid joint replacement when performed in the early stages, Dr. Halbrecht reports..

Stem cells offer a powerful tool to fight the effects of arthritis

While stem cells can be developed in a laboratory into specialized muscle, bone and tendon, they do not do this in the body. Activated adult Mesenchymal Stem Cells (MSC's) in the body have the potential to regenerate eroded cartilage that can cause arthritis.

Studies conducted two years after treatment have shown that after a single stem cell injection, 75 percent of patients still have pain relief. When someone is experiencing bone-on-bone conditions, MSC's will not regenerate cartilage, but can work as a powerful anti-inflammatory to relieve pain.

There are more stem cells in fat than bone marrow

The number of MSC's in bone marrow sharply declines with age, whereas the number of stem cells in fat remains fairly constant, Dr. Halbrecht explains. "There



Stem cell therapy can help heal rotator cuff tears, osteoarthritis, meniscus tears, cartilage injuries, tendon and ligament tears, and tendonitis. (*Photo: Boulder Institute for Sports Medicine*)

are up to five hundred times more MSC's in fat than bone marrow. Harvesting bone marrow can be very painful and often requires sedation. The procedure for harvesting fat is relatively painless and does not require sedation."

Choosing the right doctor and clinic has a direct effect on your results

The consumer needs to understand that harvesting stem cells is a surgical procedure, Dr. Halbrecht says. Most clinics are run by physicians who are not surgeons and do not have extensive knowledge of the conservative and surgical treatment for musculoskeletal problems. It is best to seek treatment by an orthopedic surgeon experienced in regenerative medicine.

If you see claims that the clinic uses "amniotic stem cells," understand that most amniotic products contain dead stem cells that have no function and have not been clinically proven to be effective for orthopedic conditions such as arthritis, rotator cuff tears and meniscus tears.

Biologics is truly the future of medicine

"The results and potentials of regenerative medicine are truly amazing. I foresee using stem cells for acute injuries where they are injected to the site of injury to accelerate healing and prevent future problems such as arthritis or instability," Dr. Halbrecht says.



It is best to seek treatment by an orthopedic surgeon experienced in regenerative medicine. (Photo: Boulder Institute for Sports Medicine)

Can stem cell therapy help you?

To learn more about how Dr. Joanne Halbrecht and Boulder Regenerative Medicine can help you return to an active, healthy lifestyle, visit boulderinstitute.com or call 303.449.8807. Hours: Monday through Thursday, 8:30 a.m. to 5 p.m.; Friday 8:30 a.m. to 3 p.m.



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