

Stem cell injections to relieve arthritis pain

(Medical Xpress)â€™Emory Orthopaedics & Spine Center is now one of a small number of clinics in the country to offer a cutting edge stem cell treatment for Osteoarthritis (OA).

The procedure involves extracting stem cell blood from the bone marrow in a patient's hip, removing the plasma, concentrating the remaining fluid in a centrifuge, and then injecting the concoction directly into the damaged joint. Because the material is a patient's own, there is little chance the body will reject it.

Kenneth Mautner, MD, an expert in physical and rehabilitative medicine at Emory's Sports Medicine Center, prescribes many conventional treatments for the pain associated with OA, such as physical and occupational therapy, cortical steroids and hyaluronic acid, but is most excited by the promise that stem cell therapy offers.

"There are only so many non-surgical options that are available," says Mautner. "In the past we've done cortical steroid injections, which can give short-term relief for pain, but oftentimes the pain comes back, and it actually can worsen the problem over time."

Mautner, who also is an assistant professor in the Department of [Orthopaedics](#) at Emory University School of Medicine, points out that while hyaluronic acid can help lubricate the joint and sometimes relieve pain, it does nothing to restore lost tissue. Stem cells, on the other hand, are cells that have the ability to develop into many different kinds of cells the body uses, such as new cartilage.

"We hope that by placing an abundance of those cells directly in the area that's deficient, healthier cells will grow."

Osteoarthritis is one of the oldest and most common forms of arthritis, and is characterized by an erosion of the protective cartilage in joints. As cartilage wears down, bones can rub against one another causing pain, stiffness and a loss of mobility. Load-bearing joints such as the knees and hips are often the first to feel the ravages of the disease. While the exact cause of OA is not known, factors such as age, obesity, injury and genetics all play a role in its progression.

Though some patients fare better than others with the treatment, side effects tend to be temporary and localized. Minor [pain](#) from the injection only lasts a few days, and most people are back to their normal activities within a short period of time.

Meanwhile, Mautner and others are learning more about which patients will ultimately make the best candidates for this type of therapy. For many who are facing joint-replacement surgery, having a stem cell injection is a small gamble when the outcome may postpone or avert a major surgery. Presently, that gamble is likely to come solely from the patient's own pocketbook since the experimental treatment is not currently covered by most medical insurance.

Provided by Emory University

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