

Reparative therapy for athletes: new treatment options

Michigan is home to many people participating in year-round indoor and outdoor sporting activities. Whether it's the young athlete participating in high school sports or the adult weekend warrior athlete, more activities yield more injuries.

Thankfully, Dr. William Kesto and the physicians at The CORE Institute utilize the most advanced treatment options when treating orthopedic joint pain and conditions, ranging from acute sports injuries to chronic conditions. Built upon a foundation of pioneering research, academics, and a passion for excellence in patient care, The CORE Institute develops quality measures and metrics to determine the best quality of care to provide patients. The physicians are well trained and selected based on their merits. Their commitment to best-in-class healthcare and optimal results separates them from the other institutions around the country.

DR. KESTO DEVELOPED AN EARLY INTEREST IN EMERGING TECHNOLOGIES IN ORTHOPEDIC MEDICINE

Raised in the metro Detroit area, Dr. Kesto grew up playing soccer at Brother Rice High School and worked at his family business in Sterling Heights. He attended undergraduate at the University of Michigan, medical school at Wayne State University and completed his orthopedic surgery residency at Detroit Medical Center. He furthered his training and completed a sports medicine fellowship at the Cincinnati Sports Medicine and Orthopedic Center. He serves as the team physician for Cleary University and Walled Lake Central High School and continues to support medical education as an Assistant Professor of Orthopedics at Michigan State University College of Medicine.

THE TRUTH ABOUT REPARATIVE MEDICINE

"Over the past 15 years, there have been many advancements in orthopedic medicine with regards to reparative medicine. Using the patient's fat cells is a fascinating concept, because we are using one's tissue to help promote healing.

"Ultimately our goal is to get the patients back to keeping life in motion and spending time doing the things that they love – whether they are a high school athlete or a weekend

warrior. We consider their long-term goals and needs as well," said Dr. Kesto. "Many patients are suffering from orthopedic pain and are not ready for invasive surgery such as a total joint replacement or have conditions resulting from sporting injuries. They are also looking for longer lasting alternatives to cortisone injections and that have fewer side effects. Physical therapy can help strengthen muscle and improve balance, but may not address the underlying pathology."

Orthopedic sports medicine physicians at The CORE Institute® were the first in the Michigan to offer treatment for orthopedic conditions with a device, called Lipogems®, which can be used as a minimally invasive option for in-office applications or as an adjunct to surgery. Lipogems is the only FDA-cleared method that gently micro-fragments the adipose tissue while preserving the cell and tissue micro-architecture.

THE POWER OF FAT

Fat is crucial for your health and the reparative cells help to promote a healing environment in response to a tissue injury. Inside of your own fat, there are many different types of cells that are used for healing (including pericytes, adipose-derived stem cells, adipocytes, etc). These cells need to stay together to work as a functional unit as it does naturally in the body.

"Fat has the best reparative cells, is easier to harvest, and more comfortable for the patients, especially in comparison to bone marrow technique. As you age, the quality of the bone marrow cells declines. Also, tapping into the bone to get the bone marrow is uncomfortable for patients," said Dr. Kesto. "In fact, fat has 100 to 500 times more reparative cells compared to bone marrow. I like to offer this option using the patient's own fat because it is easy to get from the patient during a simple and safe office procedure."

SIMPLE AND MINIMALLY INVASIVE PROCEDURE

The Lipogems system is used to harvest fat cells from the patient's thigh or abdomen while the patient is sedated with local anesthetic. The device then rinses and cleans the inflammatory oils and blood from the patient's harvested fat and keeps the natural and beneficial properties of the fat tissue. The concentrated fat cells are then injected to the injured

site and tends to remain in the area where injected instead of being immediately reabsorbed by the body. This allows for the body to absorb and maximize the benefits of Lipogems where it is injected for an extended period of time. Following the injection, the adipose tissue supports healing to repair, reconstruct, or replace damaged or injured tissue. The entire procedure from harvesting to the injection is completed in less than one hour.

"Our patients report a pain level around one or two on a scale of 10 during the procedure. The recovery from the procedure is minimal compared to invasive surgery," said Dr. Kesto., "Lipogems may be beneficial to patients seeking another option to invasive surgery, are not candidates for surgery, wish to use it in conjunction to surgery to promote healing, or are suffering from an ailment or injury. Lipogems treatment may be used when standard treatment options such as physical therapy, nonsteroidal anti-inflammatory drugs, or steroid injections have not provided significant relief."

WORKING TOGETHER TO FIND A SOLUTION THAT'S RIGHT FOR YOU

"As an orthopedic sports medicine surgeon, I treat a variety of patients from teenagers to active patients, with an ultimate goal of getting them back to their active lifestyle. With its reparative potential, the Lipogems device can help treat patients with painful joints – including the hip, knee, shoulder, and ankle – and certain orthopedic conditions, such as soft tissue defects. With Lipogems, we can help patients who may suffer from joint pain or injury that limits their ability to perform their daily activities. Our motto is "Keep Life in Motion" and with this new device and treatment option available, we can do just that for our patients," said Dr. Kesto.

Is Lipogems right for you? To learn more about how Dr. William Kesto may help you, please visit www.thecoreinstitute.com/lipogems or call 866.239.0304.

- Minimally invasive procedure in the office
- Uses your own tissue
- Facilitates the healing process
- FDA Cleared for Use in Orthopedics

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– DR. WILLIAM KESTO

