

PRACTICE WEBSITE CONTENT



# THE NATURAL WAY TO HEAL USING YOUR OWN POWERFUL FAT

**Have you tried treatment options such as physical therapy, NSAIDS, or steroid injections have not provided significant relief?**

## **Did you know that your own tissue may help you heal?**

Every tissue in your body is constantly repairing itself. Adipose tissue (fat) has been widely studied in literature and is known to have an innate healing potential. The use of fat was documented during World War I to aid in the healing of soldiers' battle wounds.<sup>1</sup> Since then, a large body of research has shown a variety of promising applications for fat in healing and regenerating damaged tissues.

## **Benefits of Your Own Fat**

Your own fat has been shown a variety of promising applications in healing and regenerating damaged tissues in orthopaedic surgery.

- ✓ Fat is abundant in the human body
- ✓ Fat can be easily accessed and harvested using a minimally invasive procedure and local anesthesia
- ✓ Fat contains many reparative cells that not only regenerate fat cells, but also promote a healing environment throughout the body<sup>2,3</sup>
- ✓ Research has shown that regardless of a person's age, their fat maintains the reparative properties<sup>4,5,6</sup> unlike other tissues such as bone marrow, which may lose healing capacity with age<sup>6</sup>



**Fat contains a network of blood vessels, connective tissue and important regenerative cells including adipocytes, adipose-derived stem cells, pericytes, pre-adipocytes and the other cells. The tissue works together as a functional unit.**

**MICROSCOPIC IMAGES OF FAT CELLS**

## AWARD WINNING TECHNOLOGY



LIPOGEMS® awarded *Best New Technology in Sports Medicine for 2016*

*ADD PATIENT ANIMATION HERE*

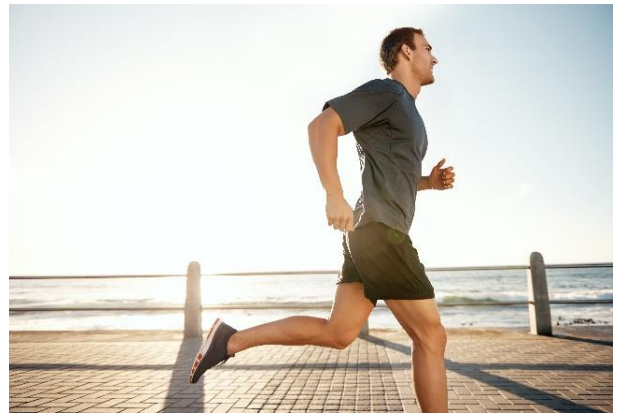
## EXPERIENCE THE DIFFERENCE OF LIPOGEMS



Lipogems is a cutting edge technology that gently processes and uses your body's own fat tissue to cushion and support areas of injury or damage as your body heals itself. The fat is taken from the stomach, "love handles" or thigh areas using a local anesthetic to numb the area. Lipogems uses an FDA approved device that 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. One benefit of Lipogems is that keeps all the special cells (adipocytes, adipose-derived stem cells, pericytes, pre-adipocytes and the other cells) in the fat without jeopardizing the cell structure and function. This harvested fat is then precisely injected into the patient's injured areas with the use of ultrasound guidance. Lipogems tends to stay in the area where it is injected instead of being reabsorbed by the body, allowing your body to maximize the benefits of Lipogems for an extended period of time. The Lipogems procedure is minimally invasive and can be performed in under one hour. Your own adipose tissue is intended to support your body in the reconstructing and repairing damaged or injured tissue. Lipogems has now been used in more than 20,000 clinical cases globally.

### YOU MAY BE A CANDIDATE FOR LIPOGEMS IF:

- You suffer from an injury or ailment that limits your normal daily functioning or physical activity
- Have a soft tissue defect in the tissue of tendons, ligaments, and muscles. In order to restore orthopaedic function, these defects require tissue repair and regeneration, as well as cushioning and support.
- Treatment options, such as physical therapy, NSAIDS, or steroid injections have not provided significant relief.
- You would like to explore Lipogems as a minimally invasive alternative to a major surgical intervention
- Your doctor determines if it may be used in addition to your surgery



## WHAT TO EXPECT AFTER YOUR PROCEDURE?

- Your doctor will help determine what activities you can perform and put you on treatment plan.
- Patients should not engage in strenuous activity for at least 1-2 weeks following the procedure.
- Patients may experience mild to moderate swelling and/or local inflammation at injection site and/or site of tissue harvest for up to 4-5 days post-procedure.
- Patients may be given some pain medication and should follow your doctor's recommendations.
- Ice may be used to reduce local inflammation/swelling.
- A compression garment maybe given to wear for a few days after the procedure.
- Patients may have some bruising at or around site of tissue harvest.

## BENEFITS

- ✓ May be used throughout the continuum of your orthopaedic care
- ✓ Fat can be easily accessed and harvested using a minimally invasive procedure and local anesthesia.
- ✓ Research has shown that regardless of a person's age, their fat maintains its reparative properties<sup>4,5,6</sup> unlike other tissues such as bone marrow, which may lose healing capacity with age.<sup>6</sup>
- ✓ Lipogems washes your fat tissue to remove the inflammatory oils and blood but preserves the natural and beneficial properties of the tissue. Lipogems tends to stay in the area where it is injected instead of being reabsorbed by the body, allowing your body to maximize the benefits of Lipogems for an extended period of time
- ✓ Can be done in the office or in addition to surgery using minimally invasive, patented and proprietary FDA cleared device.

**Individual results vary. Not all patients will have the same post-procedure recovery and activity level. See your physician to discuss your potential benefits and risks.**

## REFERENCES

1. Duhamel, G. (1928). *Les Sept Dernières Plaies*: Mercure De France.
2. Tholpady, Sunil S., Ramon Llull, Roy C. Ogle, J. Peter Rubin, J. William Futrell, and Adam J. Katz. "Adipose Tissue: Stem Cells and Beyond." *Clinics in Plastic Surgery* 33.1 (2006): 55-62. Web.
3. Yoshimura, Kotaro, Hirotaka Suga, and Hitomi Eto. "Adipose-derived Stem/progenitor Cells: Roles in Adipose Tissue Remodeling and Potential Use for Soft Tissue Augmentation." *Regenerative Medicine* 4.2 (2009): 265-73. Web.
4. D'ippolito, Gianluca, Paul C. Schiller, Camillo Ricordi, Bernard A. Roos, and Guy A. Howard. "Age-Related Osteogenic Potential of Mesenchymal Stromal Stem Cells from Human Vertebral Bone Marrow." *Journal of Bone and Mineral Research* 14.7 (1999): 1115-122. Web.
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6. Caplan, Arnold I. "Adult Mesenchymal Stem Cells for Tissue Engineering versus Regenerative Medicine." *Journal of Cellular Physiology* 213.2 (2007): 341-47. Web.

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The Lipogems System is a sterile medical device intended for the closed-loop processing of your own fat tissue in medical procedures involving the harvesting, concentrating and transferring of your own fat (adipose) tissue harvested with a legally marketed lipoplasty system. This can be used as an alternative, and/or adjunct to surgery, to support soft tissue defect repair and may promote healing in orthopaedics and arthroscopic surgery. Lipogems may or may not be appropriate for all patients.

Like any medical procedure, there is a risk for soreness, redness, swelling, and/or pain. These procedures require needle access (size, location and depth vary depending on the procedure) and this may result in (but not limited to), discomfort, pain, apprehension, bruising, tenderness, bleeding, swelling, or infiltration at the injection site. Other symptoms that may occur include lightheadedness, fainting, nausea, or vom-iting. There is slight risk of an infection at the injection site and have minimal risk of adverse reactions or complications as with any other injection procedure. Since the fat is from your own body there is no concern of disease transmission, allergic reaction or tissue rejection. For patients with chronic medical conditions such as autoimmune, diabetes, heart or lung disease, circulatory diseases or obesity, extreme caution may be necessary.

There are rare but possible risks and complications due to fat transfer including an allergic reaction to the local anesthetic, damage to underlying structures, hematoma or seroma (an accumulation of blood or fluid under the skin that may require removal), changes in sensation, unsatisfactory results that may necessitate additional procedures, permanent discoloration caused by a ruptured blood vessel at the treatment site, calcification, a divet in the area of the tissue harvest, peri-operative bleeding, a blood clot at the treatment or donor site, an infection, scar tissue, and a fat embolism caused by a fat injection mistakenly directed into a blood vessel, and death.

The information presented is for educational purposes only. Speak to your doctor to decide if the Lipogems procedure is appropriate for you. Individual results vary and not all patients will return to the same activity level. The lifetime of any procedure is limited and depends on several factors like patient weight and activity level. Your doctor will counsel you about strategies for your post-procedural care. It is important to closely follow your physician's instructions regarding post-procedure activity, treatment and follow-up care.

Ask your doctor if the Lipogems procedure is right for you.

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