

Evidence-Based Results Matter to Patients and Physicians Alike

Osteoarthritis

Nanofat applied to the joint in osteoarthritis decreases inflammation, apoptosis, and fibrosis. Nanofat application is minimally invasive, and patient comfort during this application is at acceptable levels.³

A review indicated that nanofat may decrease joint degeneration and increase articular joint cartilage regeneration. This approach further decreased pain and improved function in patients.³

In vivo results showed that nanofat significantly attenuated pain symptoms and protected cartilage ECM from damage and that nanofat promoted the cell viability and migration of chondrocytes. The regulatory actions of nanofat suggest a paracrine-based mode of action that relieved pain and repaired damaged cartilage of OA patients with no adverse events.⁴

This study demonstrated the anti-OA efficacy as well as a paracrine-based action mode of nanofat, providing novel knowledge of nanofat and suggesting it as a promising and practical cell therapy for clinical treatment of OA.⁴

Scars

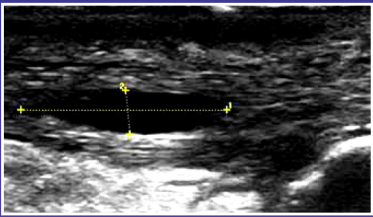
Autologous emulsified nanofat injection is an easily mastered, day-care surgical procedure for scar rejuvenation with minimal complications and good patient compliance. It improves the symptoms and texture of all types of scars, particularly those of short duration.⁵

Partial Rotator Cuff Tear

In a clinical assessment using nanofat to treat partial rotator cuff tear, an improvement of 45.6% was observed between the initial evaluation and 1 month after the intervention, an improvement of 61.37% when comparing the pre-intervention period with the evaluation performed 3 months later, and an improvement of 76% 1 year after the procedure.⁶

The study provided evidence of functional improvement and pain reduction in patients undergoing nanofat treatment, as evaluated through the UCLA and SPADI questionnaires. The absence of severe adverse effects aligns with the findings from other studies, indicating procedural safety. Additionally, a noteworthy enhancement of sleep quality was observed among the participants.⁶

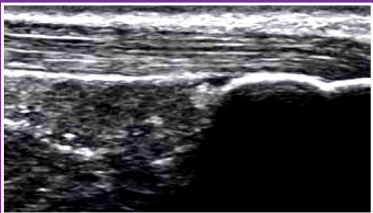
Nanofat + HD-PRP for Achilles Tendon²



Initial presentation demonstrating large interstitial tear and marked thickening and tendonosis of right Achilles tendon mid-substance



Two months following single Nanofat + HD-PRP treatment right Achilles tendon. Previous tear improving with autograft still visible. New retrocalcaneal bursal fluid collection present



One year following treatment. Note: normal appearance of Achilles tendon with resolution of tear and tendonosis



Read the study by Robert W. Alexander, MD, DMD, FICS

1: Jeyaraman M, Muthu S, Sharma S, Ganta C, Ranjan R, Jha SK. Nanofat: A therapeutic paradigm in regenerative medicine. World J Stem Cells 2021; 13(11): 1733-1746

2: Alexander RW. Biocellular Regenerative Medicine: Use of Adipose-Derived Stem/Stromal Cells and It's Native Bioactive Matrix. Phys Med Rehabil Clin N Am. 2016 Nov;27(4):871-891. doi: 10.1016/j.pmr.2016.06.005. PMID: 27788905.

3: Vargel, I.; Tuncel, A.; Baysal, N.; Hartuç-Çevik, I.; Korkusuz, F. Autologous Adipose-Derived Tissue Stromal Vascular Fraction (AD-TSVF) for Knee Osteoarthritis. Int. J. Mol. Sci. 2022, 23, 13517. https://doi.org/10.3390/ijms232113517

4: Chen Z, Ge Y, Zhou L, Li T, Yan B, Chen J, Huang J, Du W, Lv S, Tong P, Shan L. Pain relief and cartilage repair by Nanofat against osteoarthritis: preclinical and clinical evidence. Stem Cell Res Ther. 2021 Aug 26;12(1):477. doi: 10.1186/s13287-021-02538-9. PMID: 34446107; PMCID: PMC8390235.

5: Bhooshan LS, Devi MG, Aniraj R, Binod P, Lekshmi M. Autologous emulsified fat

injection for rejuvenation of scars: A prospective observational study. Indian J Plast Surg 2018; 51:77-83

6: Ronald B Barreto, Ricardo E R Silva Jr, Juliana M C Lira, Joao M M de A Santos, Bernard P R Barbosa, Jose F S D Lana, David Sadigursky. Clinical assessment of NanoFat as treatment for Partial Rotator Cuff Tear. Journal of Orthopedics and Sports Medicine. 5 (2023): 316 - 324.

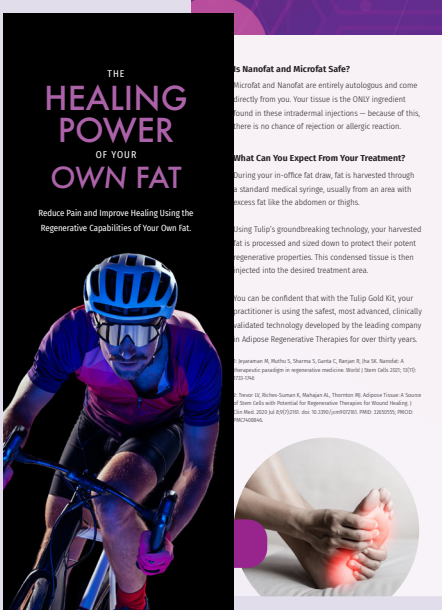
7: Sanchez-Macedo, Nadia Ph.D.; McLuckie, Michelle Ph.D.; Grünherz, Lisanne M.D.; Lindenblatt, Nicole M.D.. Protein Profiling of Mechanically Processed Lipospirates: Discovering Wound Healing and Antifibrotic Biomarkers in Nanofat. Plastic and Reconstructive Surgery 150(2):p 341e-354e, August 2022. | DOI: 10.1097/PRS.00000000000009345

8: Trevor LV, Riches-Suman K, Mahajan AL, Thornton MJ. Adipose Tissue: A Source of Stem Cells with Potential for Regenerative Therapies for Wound Healing. J Clin Med. 2020 Jul 8;9(7):2161. doi: 10.3390/jcm9072161. PMID: 32650555; PMCID: PMC7408846.

INCORPORATING REGENERATIVE MICROFAT AND NANO FAT INTO YOUR PRACTICE

- Whether you use adipose orthobiologics as a standalone minimally invasive procedure or in conjunction with surgery, Tulip's technology makes obtaining adipose orthobiologics safe, efficient, and cost-effective.
- As the leading company in fat transfer for over 30 years, Tulip has the expertise to help you incorporate the use of adipose regenerative therapies into your practice.

Free patient brochures available with the purchase of 5 GOLD kits.



Restore Tissues with Minimal Scars

Accelerate Healing Processes

Regenerate Damaged Soft Tissue

Use Autologous Tissues to Support Implants & Surgery

Minimize Infection

Eliminate or Decrease Pain

PRACTICE PROFITABILITY:

Help your patients seek the relief they are looking for and eliminate the hassle of working with insurance.

- Procedure: Nanofat injection for 2 joints
- Practice Cost: Under \$500 per Patient
- Average Treatment Price: \$5,000*
- Revenue: \$4,500 per Patient
- Surgeon Fee: \$2,500 per Hour
- Time: 60-Minute Procedure
- Profitability Is Immediate.

*Based on practices' advertised pricing



GROSS INCOME POTENTIAL: 5 Patients Per Week/250 Per Year = \$1,250,000 Per Year

ADIPOSE ORTHOBIOLOGICS FOR YOUR PRACTICE

Leading-edge Technologies

Incorporating adipose therapies to enhance outcomes and per-case revenues

Tulip®
#1 in Fat Transfer since 1991

THE NANOFAT STORY

Nanofat is one of the richest sources of adipose-derived stem cells and other progenitor cells.¹

Adipose Tissue Complex (ATC) is the largest microvascular organ in the body and, as such, has become well recognized as the largest depository of undifferentiated stem/stromal cells in the entire body. The ease of gathering fat tissues on an outpatient basis with local anesthetic has led to the evolution of biocellular therapy for a wide variety of conditions.²

Nanofat is a therapeutic gamechanger in regenerative therapies.

This emerging solution/therapy is not just a new trend but also one embraced by multiple specialties worldwide.

Don't miss out on the growing patient demand. “There is an increasing public interest in nanofat treatments for OA of the knee and hip joints. That study revealed that patients and their relatives increased their internet search from 54.4 to 78.1% on cellular treatments for their chronic disorders.”³



How Nanofat Works

Nanofat provides a higher concentration of bioactive micromolecules at the target or recipient site, acting as a bridge to enhance the site-secreted chemotactic agents.¹

Nanofat Can Help Prevent or Delay Surgery

Nanofat can regenerate the degenerated and diseased tendon, ligaments, and articular cartilage.¹

The multi-differentiation potential of nanofat could be extrapolated for utilization in avascular necrosis of the femoral head, mild to moderate grades of osteoarthritis, tendinopathies, and non-union of fractures.¹

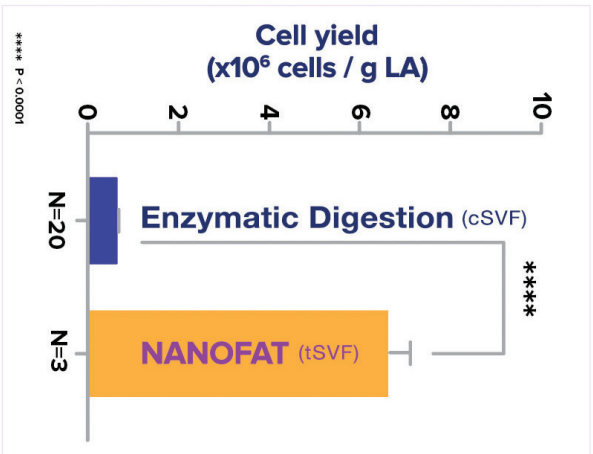
Nanofat Can Improve Surgical Outcomes

In addition to adipose-derived stem cells, nanofat contains distinct tissue repair and remodeling factors, which explains its beneficial effects on tissue regeneration.⁷

The adipose-derived stem cells found in nanofat promote wound healing.⁸

Fat grafting has revealed improvements of both function and form in patients with abnormal wound healing and scarring.⁸

Studies show that nanofat obtained with the Tulip Nanofat System is proven to deliver 10x more cells per gram than enzymatic isolation methods.⁹



Obtained with the Tulip Nanofat System



Read the study by Ramon Llull, MD, PhD

9. Sesé, Borja PhD.; Sanmartín, Javier M. M.Sc.; Ortega, Bernat A.S.; Matac-Palau, Aina M.Sc.; Llull, Ramon M.D., Ph.D. Nanofat Cell Aggregates: A Nearly Constitutive Stromal Cell Inoculum for Regenerative Site-Specific Therapies. Plastic and Reconstructive Surgery 144(5)p 1079-1088, November 2019. | DOI:10.1097/PRS.00000000000006155

What's in the Kit?

The Tulip GOLD Kit contains everything needed to obtain microfat and nanofat for office-based treatments, pre-sterilized and ready to use.

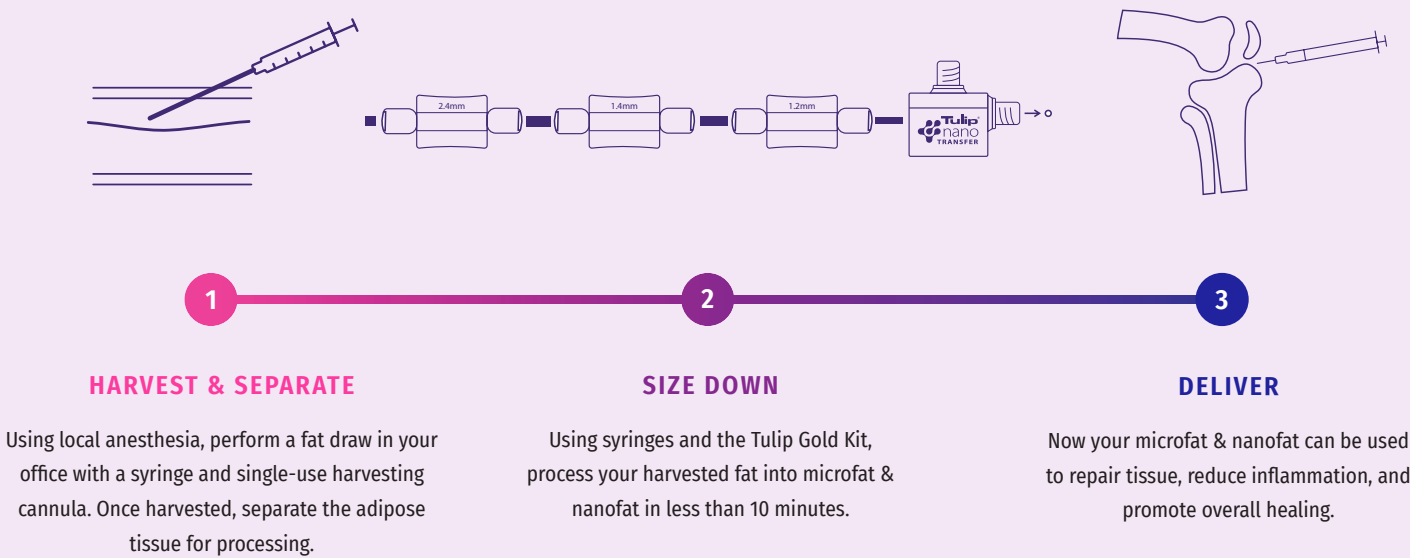
- 1 Single-Use Infiltrator
- 1 Single-Use Harvester
- 1 Single-Use Johnnie Snap
- 1 Single-Use Nanofat Sizing Kit
- 2 BD 20mL Syringes
- 2 BD 10mL Syringes
- 1 Hypodermic Needle

The Tulip GOLD Kit Is in a Class by Itself:

- Priced for practice profitability
- Validated for injectability with needles as small as 30g
- Whole system designed for maximum efficiency
- Works in collaboration with HD-PRP and bone marrow
- Thousands of satisfied users since 2016



OFFICE-BASED NANOFAT IS AS EASY AS 1-2-3



The Only System Clinically Validated to Deliver Nanofat That Is Injectable With 30-Gauge Needles.

FDA 510K CLEARANCE • HCT/P 361 COMPLIANT

Case Study:

Carpal Tunnel Release Surgery

This case report demonstrates the safety and effectiveness of utilizing a nanofat technique along with platelet rich plasma to enhance the healing and minimize risk of recurrence after a carpal tunnel release surgery.¹⁰

Scan the QR code to read the full study

10: Fitzmaurice, M. (2019) Nanofat and Platelet Rich Plasma to Enhance Recovery and Minimize Risk of Recurrence after Endoscopic Carpal Tunnel Release. Modern Plastic Surgery, 9, 8-13. doi: 10.4236/mps.2019.91002.

11: Piccinato, D. A., & Barberi, D. A. (2023). Traumatic Subcutaneous Rupture of the Plantar Fascia after Steroid Injections in 22-Year-Old Olympic Athlete. Implantation of Mesenchymal Cells Taken From Adipose Tissue over the Fascia at Rupture Insertion (Adipose Tissue-Derived Mesenchymal Stem Cells Admcs). International Journal of Medical Science and Clinical Invention, 10(05), 6764–6769. https://doi.org/10.18535/ijmsci/v10i4.010



Case Study:

2024 Olympic Athlete Recovers Faster With Nanofat

A 22-year-old Olympic fencing athlete in excellent health was suffering from plantar fasciitis while training for the 2024 Paris Olympics.

After a corticosteroid injection, she reinjured the plantar fascia, and an MRI revealed a rupture of the plantar fascia.

The athlete was treated with injections of nanofat obtained with the Tulip Nanofat System and was able to walk immediately with good footwear and return to competition after 55 days.¹¹

Scan the QR code to read the full study



The Difference Between Nanofat, PRP, and Bone Marrow*

Nanofat	PRP	Bone Marrow
Autologous	Autologous	Autologous
Retains regenerative potency with age	Contains active platelets	Contains viable regenerative tissue
Contains viable regenerative tissue	Short-lived results	Repairs injured tissues
Delivers long-term results	Releases growth factors	Painful procedure
Induces matrix regeneration	May speed healing	Long-lasting results
Reduces inflammation ³	Contains zero stem cells	Reduces inflammation
Stimulates angiogenesis	Highly dose-dependent	Regenerative potency dissipates with age
Contains Immunomodulators	Office-based procedure	Office-based procedure
Enhances lipomodelling	Simple blood draw	
Increases collagen deposition		
Thickens the dermis		
Downregulates melanogenic activity		
Decreases pain		
Promotes metabolic activity		
Decreases fibrotic activity		
Office-based procedure		
Simple fat draw		

The Tulip Advantage

- Free Zoom training for you and your staff
- Free nanofat marketing training to enhance practice profitability
- Nanofat patient educational materials available
- High customer satisfaction
- #1 company in fat transfer since 1991

*Characteristics based on studies referenced in the footnotes