

## Get Trained

Tulip has multiple options for you and your team to learn how to add adipose regenerative therapies to your practice and how to use them to grow your practice's revenue.

### Complimentary Personalized Virtual Product Training

Experience personalized, live virtual training led by Tulip's expert clinical team—designed to equip you with the confidence and skills to use our devices safely and effectively. Whether you're new or looking to enhance your expertise, each interactive session is tailored to your needs and schedule.



REQUEST  
TRAINING

### Training Highlights:

#### Cutting-Edge Clinical Applications:

Explore the latest clinical uses of microfat and nanofat in regenerative therapies. Our trainers will walk you through real-world patient applications and how Tulip's technology enhances procedural safety, efficiency and standardized processing.

#### Live Virtual O.R. Training:

Participate in real-time virtual sessions with your operating room staff to build proficiency with our instruments and protocols. This ensures your entire team is confident and prepared.

#### Ongoing Clinical Support:

Benefit from a virtual follow-up session after your first clinical case, where our trainers will provide guidance, address any challenges, and help refine your technique for optimal results.  
***Request training by scanning the QR code above.***

# Adipose Orthobiologics For Your Practice

Incorporating Adipose Therapies to Enhance  
Outcomes and Per-Case Revenues

## Hands-On Training

Tulip is a proud sponsor of the Academy of Regenerative Therapies & Science (ARTS). The mission of ARTS is to create and foster an environment where global regenerative innovators come together to share the latest advances and technology in regenerative therapies. Take advantage of the incredible hands-on training opportunities provided by ARTS.

***Scan the QR Code to learn more.***



Connect With Us On Social Media



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**Tulip**<sup>®</sup>  
#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.<sup>1</sup>

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.<sup>2</sup>

**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."<sup>3</sup>



## 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.<sup>1</sup>

### Nanofat Can Help Prevent or Delay Surgery

Nanofat can regenerate the degenerated and diseased tendon, ligaments, and articular cartilage.<sup>1</sup>

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.<sup>1</sup>

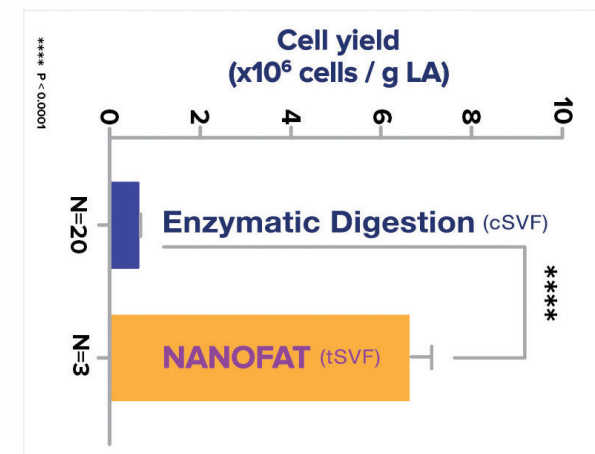
### Nanofat Can Improve Surgical Outcomes

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

The adipose-derived stem cells found in nanofat promote wound healing.<sup>8</sup>

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

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



Obtained with the Tulip Nanofat System



Read the study by Ramon Lluil, MD, PhD

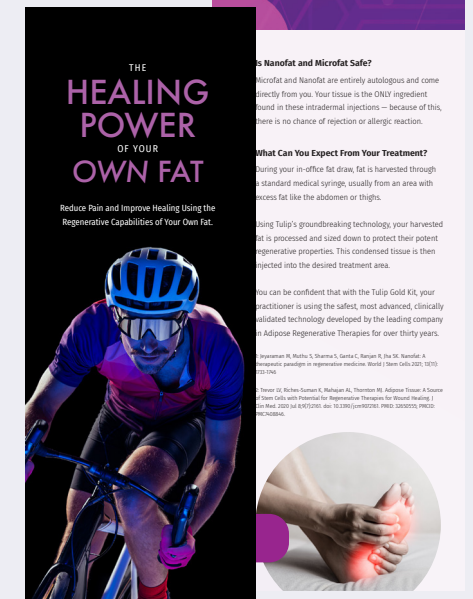
9: Sesé, Borja Ph.D.; Sanmartín, Javier M. M.Sc.; Ortega, Bernat A.S.; Matas-Palau, Aina M.Sc.; Lluil, Ramon M.D., Ph.D.; Nanofat Cell Aggregates: A Nearly Constitutive Stromal Cell Inoculum for Regenerative Site-Specific Therapies. Plastic and Reconstructive Surgery 144(5)p. 1079-1088, November 2019. | DOI: 10.1097/PRS.0000000000006155

## Incorporating Regenerative Microfat and Nanofat 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 treatment for over 30 years, Tulip has the expertise to help you integrate 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

## Potential 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**



The GOLD Kit was developed as a cohesive system using Tulip's ECAS methodology (Engineered Components As a System). Every component of the GOLD Kit is meticulously engineered to complement the others for a streamlined workflow.

Tulip's ECAS methodology for the design of the GOLD Kit translates to:

- Reduced processing time
- Consistent results
- Maximized cell viability



- 1 AlphaLuer hubs are designed to resist the side forces generated by the act of infiltration and harvesting.
- 2 Infiltrator and Harvester stems are coated (CellFriendly) making them lubricious for a smoother operator experience and more comfortable patient experience.
- 3 The NanoTransfer serves as a decanting stand for gravity separation of the tissue.
- 4 Emulsifying and Sizing Transfers mechanically and sequentially disaggregate adipose tissue for the widest range of injectability: 18g – 30g needles with 99.4% viability.\*  
\*Tulip Medical Disposable Nanofat System Validation  
Report - NF-2018 RW TULIP MEDICAL D NANOFAT
- 5 The NanoTransfer is engineered for maximum efficiency, featuring a minimized 0.12cc cavity that ensures 98.8% of every 10cc of nanofat is delivered with minimal waste. Designed for flat-surface stability, it allows controlled expression through the side exit luer and supports gravity decanting with a 20cc syringe. Its compact, ergonomic design and optimized luer connections streamline workflow for seamless, efficient use.



Contact a Tulip Regenerative Field Partner by emailing [sales@tulipmedical.com](mailto:sales@tulipmedical.com)

## 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.<sup>3</sup>

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.<sup>3</sup>

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.<sup>4</sup>

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.<sup>4</sup>

### Scars

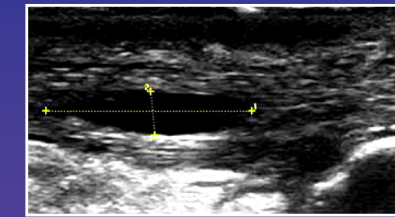
Autologous emulsified nanofat injection is an easily mastered, day-care surgical procedure for scar rejuvenation with minimal complications and good patient compliance. It improves the symptoms and texture of all types of scars, particularly those of short duration.<sup>5</sup>

### Partial Rotator Cuff Tear

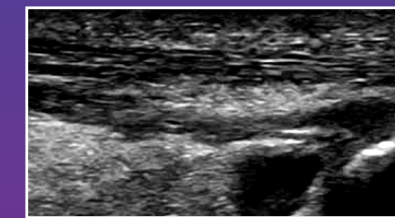
In a clinical assessment using nanofat to treat partial rotator cuff tear, an improvement of 45.6% was observed between the initial evaluation and 1 month after the intervention, an improvement of 61.37% when comparing the pre-intervention period with the evaluation performed 3 months later, and an improvement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

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.<sup>6</sup>

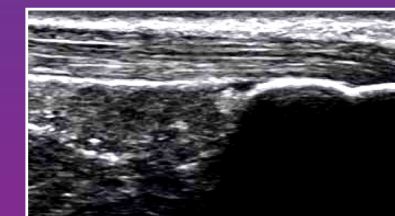
## Nanofat + HD-PRP for Achilles Tendon<sup>2</sup>



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 Its 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 Lipoaspirates: 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.



The Tulip GOLD Kit Is in a Class by Itself:

- Priced for practice profitability
- Microneedling-friendly (validated for injectability with needles as small as 30g)
- Delivers maximum throughput (less nanofat lost in processing)
- Easily permits additives (HD-PRP, HA, Botox)
- Thousands of satisfied users since 2016

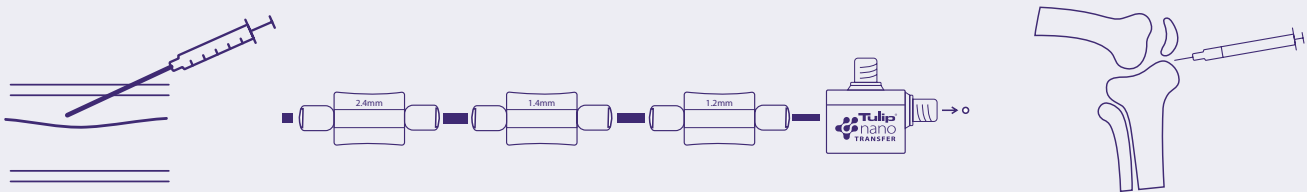


What’s in the Kit?

The Tulip GOLD Kit contains everything needed to obtain microfat and nanofat for single 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

OFFICE-BASED NANO FAT IS AS EASY AS 1-2-3



- 1**

**Harvest & Separate**

Using local anesthesia, perform a fat draw in your office with a syringe and single-use harvesting cannula. Once harvested, separate the adipose tissue for processing.
- 2**

**SIZE**

Using syringes and the Tulip GOLD Kit, size your harvested fat to microfat & nanofat in less than 10 minutes.
- 3**

**Deliver**

Now your microfat & nanofat can be used to repair tissue, reduce inflammation, and promote overall healing.

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.<sup>10</sup>

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 Admscs). 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.<sup>11</sup>

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

The Tulip Advantage

- Complimentary personalized virtual product 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