SONICSTEM

Ultrasonic Adipose SVF

- Easy
- Excellent cell viability
- Enzyme free

TriCell™ BIOLOGICS

HARVEST | PROCESS | REGENERATE

Vision

To alleviate human suffering through regenerative tools and technologies, thereby contributing significantly towards betterment of human life.

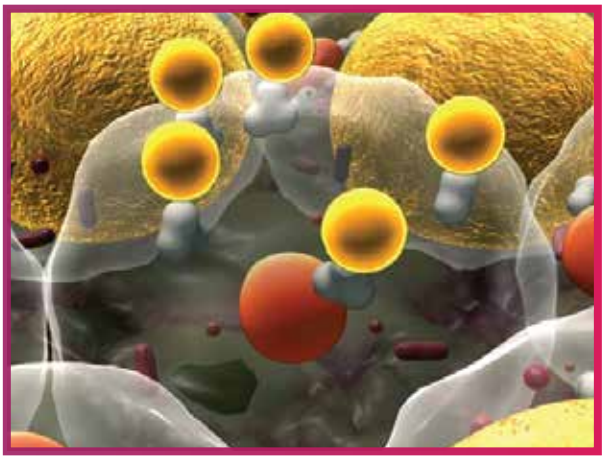
Mission

"Affordable Regenerative Technology for everyone."

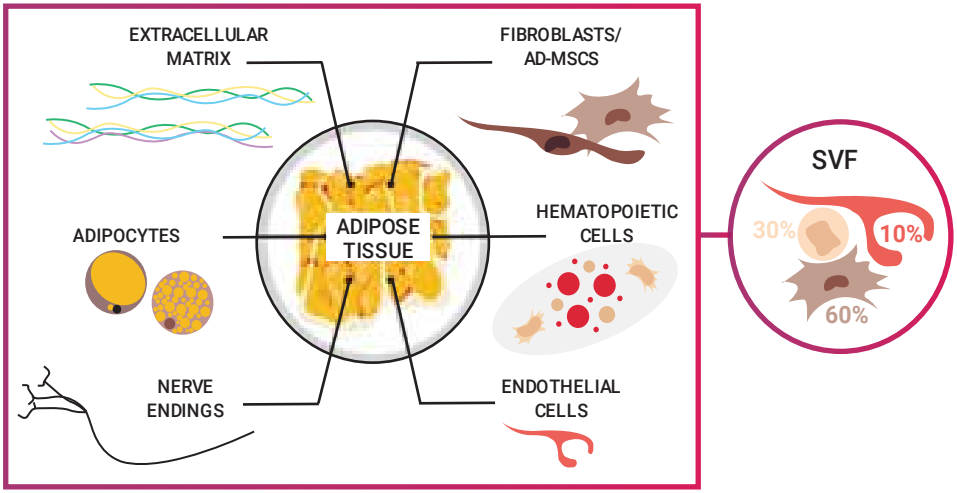
CONTENTS

DISCOVER THE REGENERATIVE POWER OF FAT

Fat is a versatile tissue that plays essential roles in the way our body functions with good healing potential. FAT has 100-500 times more reparative cells than other similar tissue. Adipose tissue contains a specialized tissue microstructure that contains important reparative cells like adipocytes, pre-adipocytes, pericytes, microvasculature and other cells incorporated into a dense collagen matrix. A key component of adipose tissue is the Stromal vascular fraction (SVF) which is ennriched with growth factors and progenitors cells higher than any tissue needed for tissue healing and regeneration.

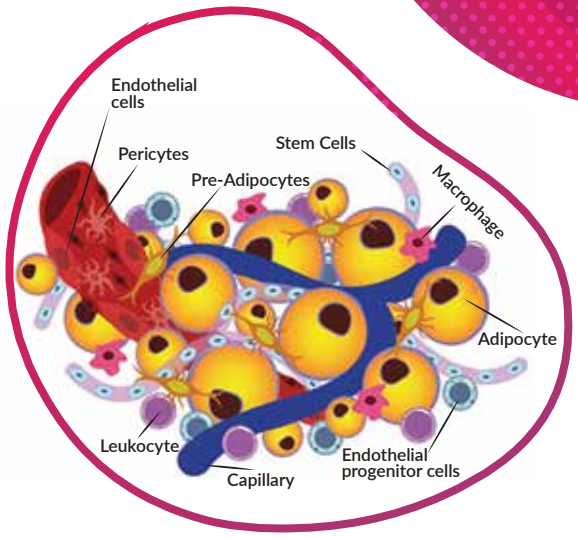


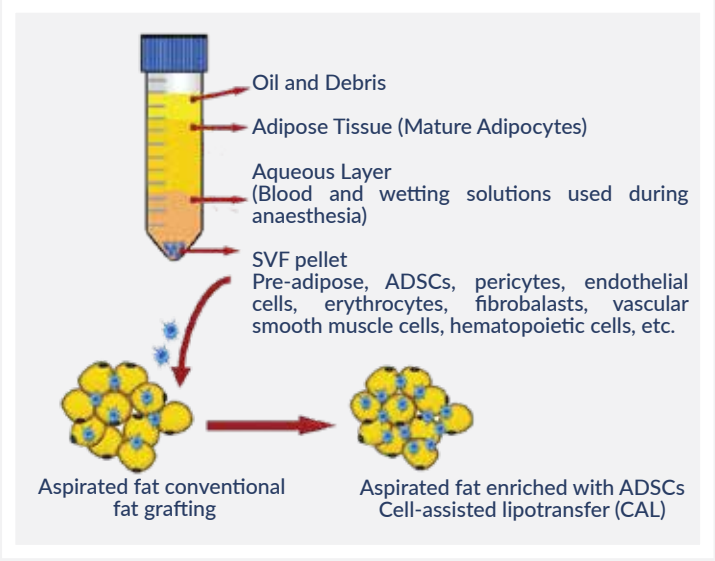
LEVERAGING YOUR FAT CELLS TOWARDS TISSUE REGENERATION



WHAT IS STROMAL VASCULAR FRACTION ?

SVF is mainly composed of endothelial cells, hematopoietic cells (B, T, and NK lymphocytes, macrophages, granulocytes, mast cells, etc.) and progenitor cells usually known as AD-MSCs as well as fibroblasts that secrete the ECM, which includes mainly collagens and elastin. Stromal vascular fraction (SVF) is a component of the lipoaspirate obtained from liposuction of excess adipose tissues. It contains a lot of stem cells or adipose derived stem cells which has multilineage ability.





01 **Aid tissue regeneration and stimulate neoangiogenesis**

02 **Release a high concentration of growth factors**

03 **Contribute to dermal tissue reconstruction**

WHAT IS SVF?

Stromal Vascular Fraction (SVF) is a diverse mix of cells including mesenchymal stem cells, immune cells, and endothelial cells. Known for its regenerative and angiogenic properties, SVF aids in tissue repair and wound healing. This makes it beneficial in managing chronic wounds.

WHAT IS SONICSTEM?

SONICSTEM™ uses ultrasound, not enzymes, to process fat tissue, getting a lot of useful cells called SVF. This method yields high cell counts and quality SVF, beneficial for regenerative medicine while reducing patient discomfort and recovery time. The ultrasound helps get more collagen out, making it easier and less uncomfortable for patients. Overall, Sonic stem is a gentle way to get important stuff from collagen, which could mean big progress in medicine.

Benefits of Ultrasonic Technology

The Sonicstem device employs ultrasound to create cavitation, vibrations, and localized heating. This helps release cellular components from collagen and tissues. Cavitation disrupts the collagen matrix, freeing cells, while vibrations break down collagen fibers, easing cell extraction. It also boosts cell membrane permeability and movement within tissues. Thermal effects soften tissue, aiding in cellular component extraction

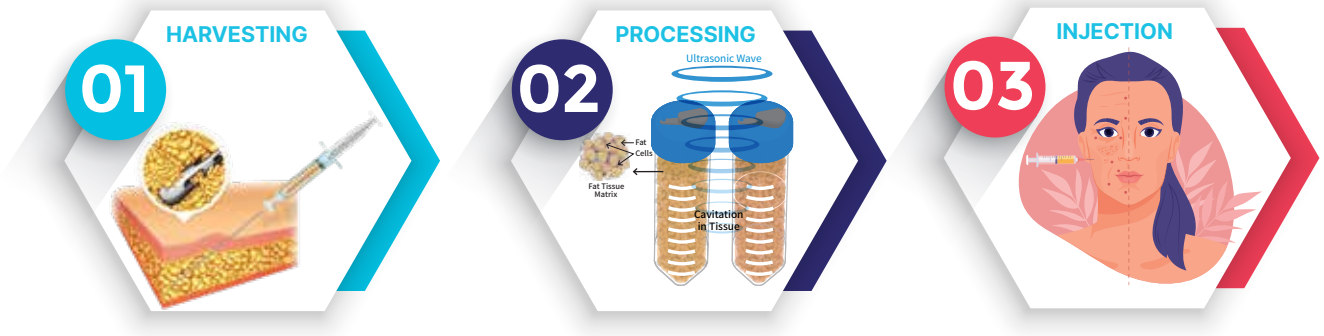
Easy To Process

100% Enzyme Free

Excellent Cell Viability

HOW DOES IT WORK ?

PROCEDURE OVERVIEW



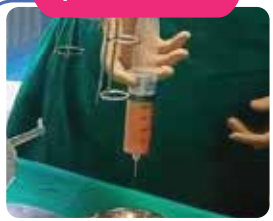
Benefits of Ultrasonic Technology

- Portable Bench-top Model
- Automated Sample Volumes
- Compact point-of-care process
- Real-time processing and output
- Ultrasonic processing with 180° Rocking
- Maximizes tissue softening and distribution
- Closure your design preventing cross-contamination

THE SONICSTEM™ PROCEDURE

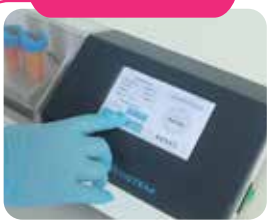
01 Fat Harvest

02 Tumescent Liquid Decantation



03 Fat Breakdown

04 Sonication



05 SVF isolation

06 Centrifuge

07 SVF seperation

08 Debris Removal

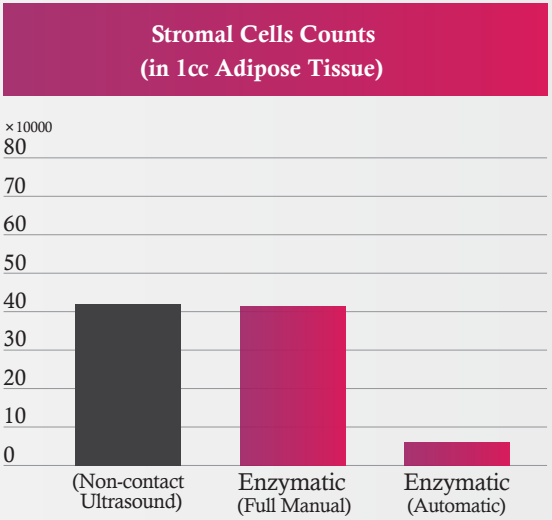
09 SVF Ready to Inject

WHY SONICSTEM™ ?

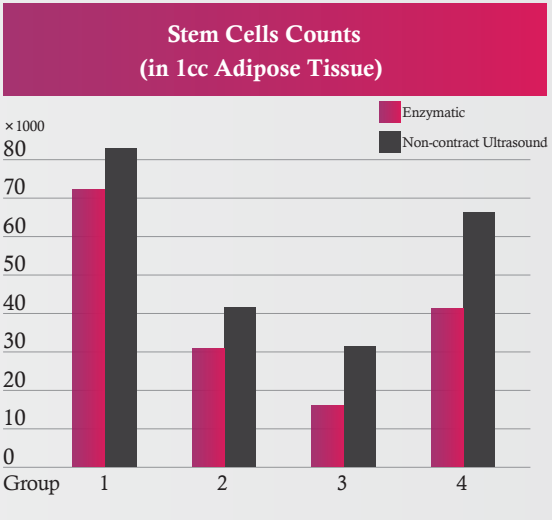
- QUICK AND EASY
- SIMPLE CONVENIENT MODEL
- DAY CARE PROCEDURE
- SHORT HOSPITAL STAYS
- CLOSED AND STERILE PROCESSING UNIT
- PAIN AND HAZZLE-FREE MECHANICAL SEPARATION

PERFORMANCE DATA

Excellent Harvest Rating



High Cell Counts and Viability

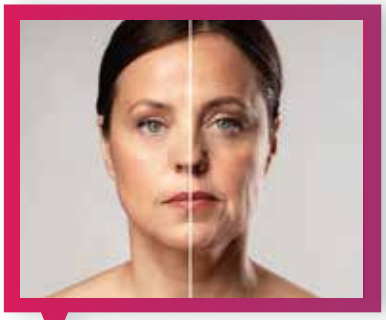


Viability is more than 80% and Debris is lower than enzymatic isolation.

POTENTIAL INDICATIONS

SONICSTEM™ can be used as an adjunct to orthopaedic or arthroscopic surgery or as a minimally invasive procedure to provide cushion and support to aid the natural healing process to reconstruct or repair damaged or injured tissue.

IS IT TIME FOR A NEW YOU ?



REFERENCES

1.Lockhart, Ryan A., et al. "Adipose derived stem cell based therapies or male/female pattern hair loss." J Stem Cell Res Med 1.2 (2016): 59-63.

2.Owczarczyk-Saczonek, Agnieszka, et al. "Therapeutic potential of stem cells in follicle regeneration." Stem cells international 2018.1 (2018): 1049641.

3.El-Khalawany, Mohamed, et al. "Efficacy of autologous stromal vascular fraction injection in the treatment of androgenic alopecia." Archives of Dermatological Research 315.5 (2023): 1269-1276.

4.Kim, Sun Jong, et al. "Innovative method of alopecia treatment by autologous adipose-derived SVF." Stem Cell Research & Therapy 12 (2021): 1-9.

5.Moseley, Timothy A., Min Zhu, and Marc H. Hedrick. "Adipose-derived stem and progenitor cells as fillers in plastic and reconstructive surgery." Plastic and reconstructive surgery 118.3S (2006): 121S-128S.

6.Yin, Yating, et al. "Autologous fat graft assisted by stromal vascular fraction improves facial skin quality: A randomized controlled trial." Journal of Plastic, Reconstructive & Aesthetic Surgery 73.6 (2020): 1166-1173.

7.Amirkhani, Mohammad Amir, et al. "Rejuvenation of facial skin and improvement in the dermal architecture by transplantation of autologous stromal vascular fraction: a clinical study." BioImpacts: BI 6.3 (2016): 149.

8.Surowiecka, Agnieszka, and Jerzy Strużyna. "Adipose-derived stem cells for facial rejuvenation." Journal of Personalized Medicine 12.1 (2022): 117.

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SONICSTEM

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