CLOVER

LIPOCELL

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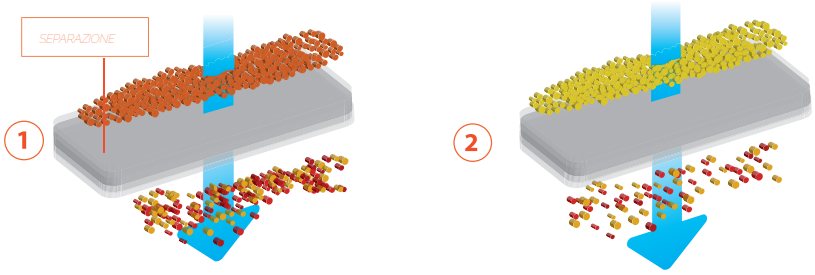
Lipocell is a technology that can enhance the biological properties of adipose tissue.
In fact, fat is one of the richest adult tissues in mesenchymal cells with high regenerative potential.

These cells enclosed in the vasculo-stromal niche are pluripotent and can differentiate into specialized cells depending on the graft site.

They also respond to stimuli in the suffering tissue by releasing anti-inflammatory cytokines and growth factors promoting tissue healing.

Technology

The LIPOCELL device is equipped with a semipermeable membrane that can separate adipose tissue from oily and hematic residues by continuous washing with RL or physiological saline.
Dialysis of the tissue maintains the integrity of the extracellular matrix while minimizing stress on the cells.
The final product is purified and clustered reduced adipose tissue.



High regenerative potential

Atraumatic tissue processing and purification allow the intact vascular-stromal niche to act as a natural scaffold for cells through trophic and anti-inflammatory action aimed at tissue regeneration.

A simple, effective and safe procedure

Lipocell is a closed-loop system; the process takes place in a sterile field minimizing the risk of contamination.

The procedure is simple, rapid, reproducible and applicable in multiple therapeutic areas (orthopedics, pain therapy, plastic and reconstructive surgery).

Characteristic

- Closed circuit
- Blunt-tipped cannulas with holes ovolidal to facilitate lipoaspirate retrieval.
- Minimal tissue manipulation
- Total purification from pro-inflammatory blood and oil residues
- Integrity of the vasculo-stromal niche
- Minimal mechanical stress

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A small liposuction

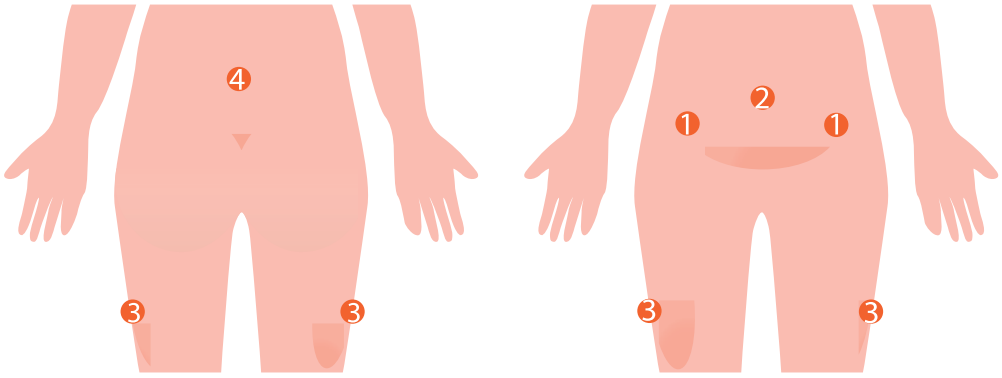
Adipose tissue is harvested by small liposuction from subcutaneous fat, preferably in the abdominal region.

The patient should be positioned supine, and two symmetrical accesses are made between the lumbar and iliac abdominal areas (1), alternatively a single periumbilical access (2).

Depending on the patient's characteristics, alternative sampling areas such as trochanteric fat can be chosen to be performed bilaterally (3) or lumbar (4).

A harvest of about 60 to 90 ml of lipoaspirate is then performed, obtaining 8 to 18 ml of final product ready to be infiltrated.

The procedure is managed under local anesthesia by infiltration of Klein's solution preceded by light sedation.



Infiltration

KLEIN SOLUTION
250 ml saline solution
20 ml Lidocaine 2%
0,5 ml Epinephrine 1mg/ml
* values are just indicative and may vary

The infiltration aims to prepare for the adipose tissue liposuction. Epinephrine can limit the bleeding during the liposuction thanks to its vasoconstrictory effect, while lidocaine has an aesthetic effect. The saline, while promoting more vasoconstriction through pressure increase, creates a tumescent area that help the liposuction with the provided aspirating cannulae.
After performing an incision in the illustrated spots, use the infiltration cannula (16G) connected to 50 ml syringes pre-filled with Klein solution. It is very important to perform the infiltration using retrograde movements of the canula homogeneously
(blunt-tipped with ovoid holes that facilitates withdrawal and makes the process atraumatic).
Avoid making transverse movements with the cannula.
Once 2/3 of the Klein's solution has been infiltrated, it is necessary to wait 7-10minutes before sampling.
Digital manipulation of the infiltrated area can be performed to better distribute the solution..
Avoid transverse movements with the cannula. After the infiltration of 150-200 ml of Klein solution, wait 10 minutes.
It is possible to perform a digital manipulation of the abdomen to help the distribution of the Klein solution into the subcutaneous layers.

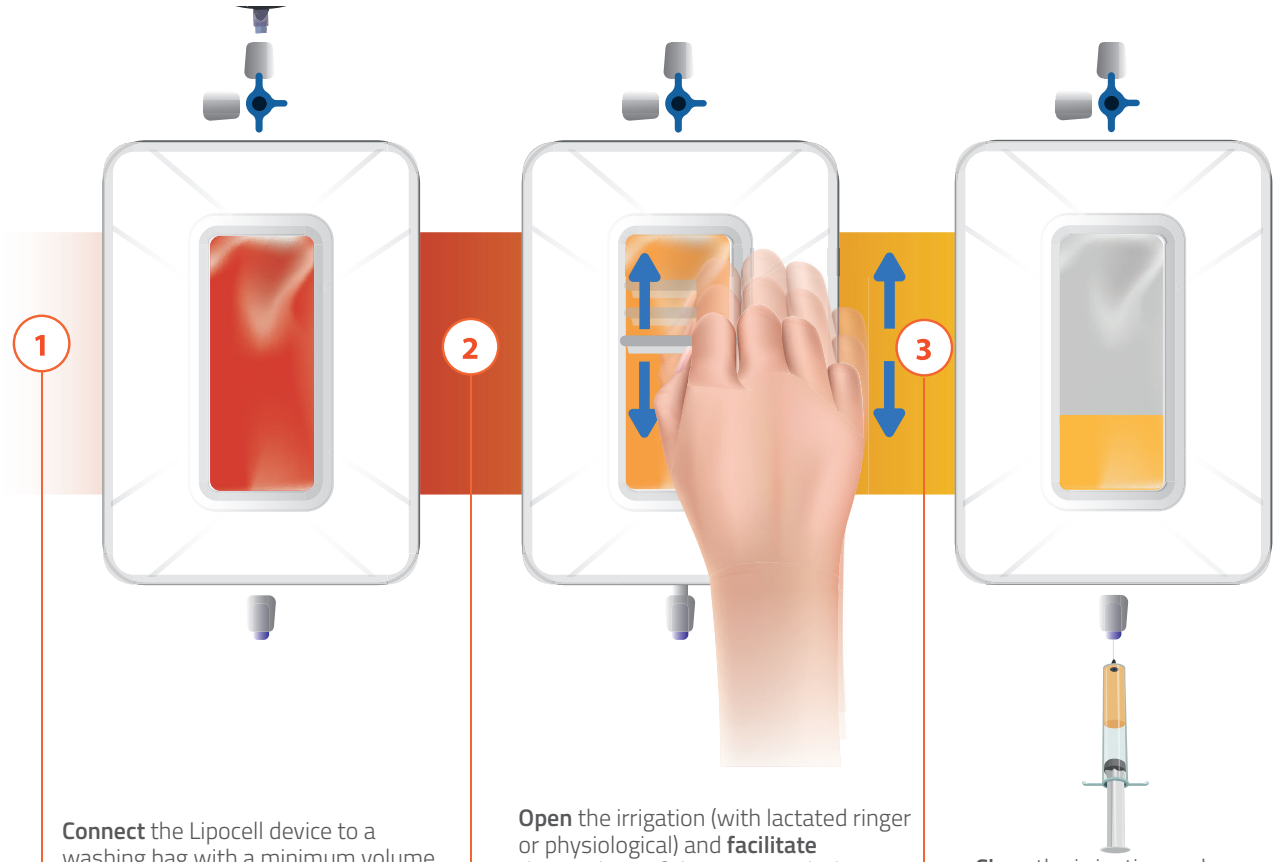
Aspiration

Once 10 minutes have elapsed, the suction cannula (13G) can be connected to the self-locking syringe. The locking mechanism, to be operated once the cannula has penetrated the subcutaneous panniculus adiposus, creates negative pressure inside the syringe facilitating the collection of lipoaspirate. Avoid transverse movements with the cannula.

Once the fat is obtained it is necessary to dress the harvest area.

At the end of the procedure, it is recommended to apply a compressive dressing on the patient to limit bruising and hematoma formation. An elastic belly band kept on average for one week will help limit this.

Should the resulting product appear very thick, transfer it to the 2.5-mL syringes provided in the kit or to smaller luer-lock syringes to facilitate product release during grafting. You can use the needle in the kit, or other needles with a recommended diameter of 18 or 20G.



Connect the Lipocell device to a washing bag with a minimum volume of 250 mL hanging from a stand**.**
Insert the obtained lipoaspirate through the "IN" luer-lock connection.

Open the irrigation (with lactated ringer or physiological) and **facilitate** the washing of the tissue with the brush provided within the kit operating gentle movements. Keep on until the tissue becomes yellow and the outflow irrigation is almost transparent.

Close the irrigation and **remove** the excess of washing liquid with the help of a spatula. Connect a 10 ml syringe to the "OUT" luer-lock connection and collect the final product ready-to-use.

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