

eco Guide

Connect Rack for Fluid Bag.

See below - if harvesting fat.

Connect Foot Bellows.

Attach Filter/Silicone Tubing to eco. Attach other end to Suction Cannister.

Turn on.

Unfold Suction Bag and insert into Cannister with the notch on the lid near the Tube. Push VACUUM Button and allow Bag to fill with air. Put finger over White Angle Connector and press down in the middle of the lid until it seals/4 green lights illuminate.

Turn off the eco.

Hang bag of pre-warmed Klein's Solution (includes):

1000ml of Saline

500mg of Lidocaine - 50ml of 1% or 25ml of 2% - local anesthesia

1-2ml of Epinephrine - keep out of light - vasoconstriction to minimize bleeding

20ml of 8.4% NaHCO₃ (Sodium Bicarbonate) - restores acid balance (due to Lidocaine) for patient comfort

A single Bag should be enough, but be prepared for a second one just in case.

Do not use a premixed Lidocaine/Epinephrine solution. The Epinephrine concentration is too low.

Unpack Applicator and lay on Sterile Field.

Remove Applicator Cap on eco. Do not look inside where the laser fires. Push Infiltration Pump **firmly** (with other hand on the back/top to secure in place) into the socket with one (Infiltration) Tube on the top and two (Transfer) Tubes on the bottom. Attach the Cap.

Connect one Tube to the Bag. **Vent the other Tube by unlocking, holding below Bag level, lifting the Cap until vented and clip shut.** Clip unconnected Tube onto Fluid Bag Rack.

Connect Suction Tube (from the Applicator Kit) to Hand-Piece. Keep Hand-Piece on Sterile Field. Connect the gray end (non-sterile when liposuction-only) to the White Angle Connector of the Suction Bag.

Attach Infiltration Cannula to Hand-Piece.

Turn on the eco. The logo should not be blinking.

The barcode on the Applicator will be read by the laser and you have 2 hours.

Reinsert the Applicator (and jiggle if necessary) if the icon on the eco is still blinking. Be sure to pull out the Piston until it clicks before reinserting. The icon stops blinking once the barcode on the Applicator has been detected.

Spray a bit before use to remove any air from the system.

Mark Area (with a 15cm Cannula in mind)

Sterile Drape

Numb Incision Site

Stitch Incision with a #11 Blade

Numb Harvest Area -

Press the FLOW button and infiltrate with solution by stepping on the Foot Pedal. You may wait for 0-10 minutes, depending on the pain tolerance of the patient; or just infiltrate one side, then the other and then you may be ready to go back to the first side.

Go **slow** with the Infiltration Cannula, use the **full length** of the Cannula and **gently rotate** while numbing with your thumb over the Simulated Cannula Hole. Use the same channel 3-5 times before changing direction. Use 75-100ml of fluid per side.

Replace Infiltration Cannula with Irrigation/Aspiration Cannula - Do not pull off Cannula in the direction of another person. Consider the 3.8 RAPID when liposuction-only.

Use an 18 gauge needle if you need to slightly widen the incision.

Begin Liposuction -

Press VACUUM Button when ready for the procedure. FLOW will already be on. **Placing your thumb over the Hole on the Irrigation/Aspiration cannula is what generates vacuum.** You will irrigate and aspirate at the same time (without rotating).

When Finished - Push Ejection Button while removing the Infiltration Pump.

Remove White Angle Connector on Suction Bag and attach Small Cap.

When Harvesting Fat for Re-Injection:

Remove Seal, Drain Tube and FillerCollector. Keep it all sterile.

Place FillerCollector on the Sterilized Adapter Bracket, over the Heavy Metal Base covered with a Sterile Cloth or directly on the side over a Sterile Cloth.

Push Silicone Seal firmly in place in the "Extraction" hole.

Attach Drain Tube to the bottom of the FillerCollector.

CLOSE CLAMP on the Drain Tube.

The gray end of the Applicator Tube (sterile when harvesting fat for re-injection) attaches to the large "Patient" connection at the top of the FillerCollector.

Connect the small end of the Connection Tube (sterile) to the smaller "Suction" connection at the top of the FillerCollector.

The larger end (non-sterile) goes to the White Angle Connector on the (green) top of the Suction Bag.

When finished you can connect the Applicator Tube to the Suction Bag if continuing without harvesting fat. Turn off VACUUM and FLOW while reconnecting.

A smaller 3.5 Cannula is best, but you may use a 3.8 RAPID (for fibrotic tissue). Consider a 3.8 RAPID when liposuction-only or when having difficulty with fat harvesting. You will likely need to further micronize fat for re-injection, though, if using a 3.8 RAPID Cannula.

You may drain some fluid from the FillerCollector into the Suction Bag by attaching the Suction Tube (sterile) to the Drain Tube - turn off VACUUM and FLOW when changing tubing - and then turn VACUUM back on - open the Clamp and be ready to close when the fat gets to the bottom of the FillerCollector. You may then draw fat into your syringe with an Extraction Cannula (by removing the Silicone Plug).

A 18-20 gauge needle or cannula is best for re-injection.

Attach capped needles (if using needles) to syringes following aspiration.

Let the contents settle for a few minutes with the syringes held vertically and drain excess fluid.

A Luer-to-Luer Connector will allow you to step down to a 10ml syringe or smaller for ease of re-injection. **Use the same Connector, even when using an 18 gauge needle, to transfer fat between two syringes (without an Adinizer) about 4 to 5 times to make your injection even a bit easier (to gently break up any fibrotic tissue).**

Using the Adinizer:

Begin with the 1200 micron Filter with the filled syringe on the side with the colored dots.

Attach the new syringe on the other side. Go back and forth 31 times ending with what started as the empty syringe (to eliminate the chance of clusters). Repeat with the 600 micron Filter.

You will lose 1ml of fat per Filter. 10ml syringes are much easier than 20ml.

Adinizing is usually not necessary when using an 18 or 20 gauge needle or cannula.

Tips:

The abdomen is often best for harvesting fat (with the middle to bottom part better than the top). For smaller volumes one side may be OK.

There is a learning curve with the gentle procedure so take your time, don't hurry and focus on being very smooth.

Movement should be slow to allow the spray to gently loosen fat.

Use full length of Cannula and not just the tip.

Aspirate 3-5 times through the same channel before changing direction.

Too Much Blood - not enough spray - increase fluid - foot on Pedal only

- too fast
- fibrotic tissue
- epinephrine was exposed to light or is too old

Too Watery - decrease use of spray - thumb on Cannula Hole only

Air in Tube - too fast

If the Foot Pedal connection becomes frayed you may cut a small piece off and reapply.

Foot Pedals, too, can wear out or become saturated and need to be replaced.

The Cannula may be clogged if there's no vacuum. You would remove the Cannula and wipe with a sterile cloth, clear the tip with a needle and/or flush.

Other causes of no vacuum are a full Suction Bag/overflow protection or a wet Hydrophobic Filter. A wet or polluted Filter will need to be replaced and should be replaced annually.

You're not deep enough if the skin follows the Tip while pressing the Tip down (from the Hand-Piece) or moving the Tip side-to-side.

You will irrigate and aspirate at the same time, but may spray-only (Foot Pedal) if the harvested fat is reddish in color or aspirate-only (thumb on Cannula Hole) if clear.

If you ever remove the Applicator for any reason you'll have to pull out the Piston until it clicks before re-inserting.

A general set to have on hand is the 2.5 Infiltration Cannula, a 3.5 Irrigation/Aspiration Cannula and a 3.8 RAPID Irrigation/Aspiration Cannula.

You can always use a little saline if you ever need to get every last bit of fat out of the FillerCollector and/or syringe.

The correct language for joint applications is Structural Support and Cushion. 5-10ml per knee.

Turn off both VACUUM and FLOW whenever manipulating the system - changing Tubing, etc.

WAL Foot Pedal vs. Thumb-Hole on the Cannula

It's important to make sure that there's not too much fluid. When there's too much fluid the spray that breaks up the fat is just spraying into fluid and not into the fat itself (thereby not breaking up the fat).

You'll have your foot on the foot pedal to spray and your thumb on the cannula thumb-hole to aspirate (both at the same time), but if the aspirate fluid/fat is too clear - just aspirate (with the thumb on the cannula thumb-hole and foot off of the foot pedal).

If the aspirated fluid/fat is starting to get red - just spray (with the foot on the foot pedal and thumb off of the cannula thumb-hole).

The baseline is spraying and aspirating at the same time, but you may be adjusting from time to time (with spraying-only/red at times and aspirating-only/clear at times and then going back to both at the same time).