

# Lipofilling (Autologous Fat Transfer/Fat Grafting)

Lipofilling (also known as autologous fat transfer or fat grafting) is a technique whereby fat is taken from one part of your body and injected into another area. It can be very effective in improving the contour e.g. in breast surgery or refining the appearance of areas that have lost volume due to ageing, scarring or weight loss.

The transferred fat develops a new blood supply in its new location over the first few weeks following surgery. A proportion of fat will be reabsorbed by your body during this period (on average 20% but up to 50% in some situations). The remainder will stay permanently. It will feel soft and usually gives a very natural feel and appearance to the area that it is transferred to.

## Indications for lipofilling

- Improvement of volume or contour after breast reconstruction
- Breast augmentation
- Improvement of breast volume or shape e.g. tuberous breasts, after breast augmentation with implants to improve cleavage
- Improvement of contour in scarred areas e.g. after previous surgery or injury. Lipofilling may also improve the quality of the overlying skin or scar in some situations.
- Correction of contour problems following previous surgery e.g. post gynaecomastia correction
- Replacement of facial volume lost with ageing or weight loss
- Lip augmentation
- Buttock augmentation (the Brazilian Butt Lift uses this technique)

# Limitations of lipofilling

- More than one session of lipofilling may be needed. This is due to the nature of how
  the fat heals into the area it is transferred to. Usually these would be scheduled 3 to
  6 months apart.
- Lipofilling will not remove cellulite, stretch marks or scars
- You will need to have enough fat in a suitable area available to harvest for the type of lipofilling procedure you are considering. Some very slim people may not have enough suitable tissue for transfer.
- If considering lipofilling for breast augmentation surgery (breast lipoaugmentation), a
  small to medium size increase is usually possible but a large size increase is
  generally impractical to consider this technique for. This is due to the number of
  surgeries that would be needed to achieve this (and also the associated recovery
  times and cost.).

• If considering breast lipoaugmentation, the fat would be injected around the existing breast tissue that you have. You may need a mammogram beforehand and you should be aware that there is ongoing research in to the interaction between the transferred fat and breast tissue and as to whether the transferred fat affects screening for breast cancer afterwards. To date research suggests that this technique is safe to use and that experienced breast radiologists can tell the difference between transferred fat and other changes on mammograms. You should always tell a radiographer if you have had fat transferred to your breasts before having a mammogram. More information may be available to advise us further on this in the future.

#### Procedure details

Pre and post surgery clinical photographs of the treated areas will be taken. The fat is harvested via a liposuction-style technique. A narrow metal tube (suction cannula) attached to a suction pump or a syringe is inserted through the very small skin incisions and used to remove the required fat by moving it through the area to be treated under the skin. Ms Nugent injects a local anaesthetic and adrenaline solution beforehand to help reduce pain and bleeding. Then the fat is prepared for transfer in the operating theatre. Once ready, this fat is then carefully injected into the chosen area for lipofilling. Absorbable sutures may be used to close the incisions and you will then either be placed into a supportive dressing or garment as required.

Lipofilling can be carried out under local anaesthetic (while you are awake) or general anaesthetic (while you are asleep) depending on the extent of the surgery planned and your wishes. The surgery takes between 45 and 180 minutes depending on the volume of fat transfer planned.

Depending on the extent of surgery, you may be able to go home the same day or after 1 night in hospital. Lipofilling is usually a day case procedure.

#### Combination surgery

Lipofilling is often combined with other procedures to give the best possible results for those procedures. Some common combinations include:

- Lipofilling and facelift
- Lipofilling and breast augmentation

#### Post-operative course

You will have bruising and swelling in the treated area and the area where fat was taken from afterwards which will peak at day 2 to 3 and slowly resolve over the weeks following this. Most of this will go over 4 to 6 weeks. You will have very small scars in the areas operated on and you often have some temporary numbness of the overlying skin. Some fluid may ooze from these wounds in the beginning.

You may be advised to wear a supportive or compression garment for 4 to 6 weeks postoperatively. This helps to provide support to the skin and to keep swelling controlled.

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It is important to realise that at the area where fat has been injected, there will be some absorption of this fat as well. At about 6 weeks post surgery, there is usually a good indication of how much fat has remained and this generally lasts permanently. Plans for a second surgery if required are made following this assessment.

## Recovery

Most people return to work between 2 and 14 days depending on the extent of the lipofilling and the nature of their work. Light activities can be resumed within 2 weeks and normal activities are usually unrestricted after 4 weeks. Further restrictions may apply in some cases e.g. on sitting for lipofilling to the buttock area.

# Complications

While most lipofilling surgeries go very smoothly and patients are delighted with the results, as with any procedure there are some risks associated with lipofilling – both to the donor site (where fat was taken from) and the recipient site (where the fat was transferred to).

- Swelling and bruising. This will peak around day 2 to 3 post surgery and will gradually reduce after that. Most of the swelling is usually gone by 6 weeks but occasionally lasts longer than expected.
- Bleeding. If you have a tendency to bruise or bleed easily or take medications such
  as aspirin that make you more prone to bleeding, this may be a higher risk for you.
  It may be necessary to stop some medications in advance of surgery. Occasionally
  there is more bleeding than expected from the incisions or bleeding under the skin
  forming a haematoma. Rarely a return to theatre or the procedure room is needed
  to deal with this. In this situation is may be necessary to make a larger incision to
  control the bleeding.
- Infection. Infection rates are low in lipofilling surgery. If an infection occurs, you will be treated with antibiotics and very rarely a return to theatre or the procedure room is needed to washout or further treat the wound.
- Slow healing/poor scars. Lipofilling incisions are small and usually heal very quickly and well but occasionally take longer than expected particularly if infection or bleeding has occurred. Occasionally the scars heal in a poorer condition than expected and are red, raised or lumpy.
- Asymmetry. No-one is perfectly symmetrical and we all have differences between
  the two sides of our body. These differences persist after surgery but are usually
  small enough that they are not overly visible and do not require any treatment.
  Occasionally further treatment is required to address a significant asymmetry
  following lipofilling surgery. This may be due to uneven absorption or retention of
  the transferred fat.
- Stretch marks and scars will not be removed by lipofilling.
- Contour irregularities due to uneven absorption or retention of the transferred fat at the recipient site or sometimes at the donor site. This can be corrected at a second surgery.
- Clots in the legs (deep vein thrombosis) can form if surgery is long and mobility is reduced afterwards. They can sometimes travel to the lung (Pulmonary embolus (PE)) and this can be very serious. If staying in hospital, you will receive blood-

- thinning injections and be asked to wear compression stockings. You should continue to wear the stockings for 2 weeks after discharge from hospital.
- Numbness or hypersensitivity of the overlying skin due to bruising or damage to the small nerves of the skin. This is usually temporary but may persist. The skin can also feel hard postoperatively. This too should soften with time.
- Under or overcorrection. It can be variable how much fat is absorbed. While a prediction of the expected result can be given, it is always an estimate and you will need to wait until at least 6 weeks after surgery to see the results.
- Fat necrosis. Sometimes when transferred fat does not survive, it undergoes necrosis or tissue death. This can become apparent as a lump in your tissue. Usually this slowly resolves over time and no specific treatment other than massage of the area is needed but occasionally the area can develop an infection.
- Oil cysts. Occasionally, if your body is absorbing some of the fat transferred, oily fluid cysts may form in your tissue as the fat liquifies. They may be palpable or cause a temporary discharge from injection sites.
- Fat embolism. This is a very rare complication of liposuction (used to harvest fat for lipofilling) where fat can enter the blood stream and travel to other sites in the body. If this is to the lungs, it can have very serious implications.
- Damage to internal organs the very rare but serious complication of perforation of the abdominal or chest wall by the liposuction instruments used to harvest fat for lipofilling, which can lead to internal organ such as bowel or bladder damage. While this is extremely rare, it can be serious and would require treatment with antibiotics and in a worst case scenario a further procedure by a general surgeon to correct this
- The fat cells that are transferred during lipofilling behave in a similar manner to the area that they originated from. Therefore if you gain or lose a significant amount of weight afterwards, they may increase or decrease in size too. This is not usually a problem as the amounts transferred are small or the change in size is still in proportion to the recipient area proportions. Occasionally, it may require a further adjustment to counteract this effect.
- Disappointment with the result. Sometimes after undergoing a lipofilling procedure, patients are disappointed with the result. This may be due to one of the problems described above occurring or due to unrealistic expectations of the surgery e.g. mild asymmetries or less than expected retention of fat in the recipient area. It is important that you discuss your expectations in advance of the surgery so that you can understand what to expect from the surgery. (Additional costs may be incurred for further procedures.)

# Longevity of procedure

Lipofilling surgery has a high success rate and is considered an excellent procedure for improving volume and/or contour. It does, however, often require more than one procedure to achieve the desired final result.

The natural ageing process of the body will continue regardless of surgery and so may over time alter your body shape. The transferred fat will age with the rest of your body as it always would have.