PRINTZLAU

PRIVATHOSPITAL

# Information on breast augmentation with fat cells

## Briefly about lipofilling

Breast augmentation surgery has been the most popular cosmetic surgery for many years. Regardless of whether the reason is deformity, altered breast shape or size post pregnancy and breastfeeding, natural signs of aging or simply a desire for a larger breast volume, this particular surgery provides a lot of women with a feeling of increased wellbeing and satisfaction.

Until now, silicone-implants have been the preferred method in breast augmentations. But now, a new method has come about! A fat transplant makes use of the fat cells that have been removed during liposuction surgeries by placing the fat cells in the breast during the same surgery. Through careful and delicate cleansing of the fat cells and a special injection technique, a long-lasting result is achieved. The fat cells that survive the first 3 months, (typically about 50-80%) will behave as any other fat cell in the body. This means that if you lose weight after the surgery, you will also lose breast volume exactly like a non-operated breast would do - and vice versa. Without any changes in weight, the durability of the surgical result will be several years or even life-long. However, fat transfer surgery has not existed long enough that this claim can be made with absolute certainty. Since a large part of the breast tissue already is made up of fat cells, a natural and durable result can be achieved with this surgical treatment.

## Who is eligible for the surgery?

### *Do you want a breast augmentation without any ”foreign objects”?*

Today, so many different breast implants of such high quality are available that it is usually possible to find one that fits well with your desires for a breast augmentation. Nevertheless, some women do not want to deal with the consequences or the risk of complications that comes with implants. It could be anything from visible scars to a personal attitude or fear that the breast will feel cold or unnatural with an implant inside. For these women, fat transfer surgeries are groundbreaking news, as the possibility for a permanent breast augmentation has not been available until now.

### *Do you want a subtle and natural, yet noticeable result?*

Women who desire a small or moderate breast augmentations are well-suited for a fat transfer. There are limits to how many fat cells can be transferred during a single surgery. You can expect the breasts to increase with a little less than one cup size with each surgery. If you desire a larger augmentation, the surgery can be repeated several times as long as there are enough fat cells to transfer from on another part of the body. If you prefer a large change in breast volume at once, this treatment is not well suited for you.

### *Do you have weight to lose?*

For this surgery, it is important you have enough fat-cells to transfer from another part of the body. Typically, the fat cells are harvested from the thighs, the hips or the on the stomach. Not all fat cells survive the transplant, and some are damaged and discarded during the cleansing process. For this reason, the rule of thumb is to harvest double the amount of fat the breast is desired to increase with. If you would like an augmentation of 150 ml (150 cc) on each breast, 300 ml of fat should be harvested for each breast - 600 ml in total.

### *Do you want a long-lasting result without having to go through surgery again?*

Today, silicone-implants are considered perfectly safe and may last many years. Regardless, your body treats them as foreign objects and will eventually react to the implants. When this happens, the body forms a pocket of scar tissue around the implants, which may cause

the breasts to become hard or deformed which in some cases can be painful (capsular contraction). These complications can only be dealt with in another surgery where the scar tissue is either removed or loosened. With fat transplants there are no risks of the body rejecting the cells that survive the transfer because the body will recognize them as its own.

### *Is your weight normal?*

If you are very lean, it can be hard or impossible to find suitable areas for harvesting fat cells. If, on the other hand, you are very overweight, we cannot offer you this surgery. The result will be remarkably poorer if you are very overweight or obese; fat cells in obese people are larger and more susceptible to damage during liposuction than fat cells form someone with a weight within the normal range. For this reason, we have chosen to only offer fat transfer surgery to women with a BMI between 21 and 28. You can calculate your own BMI here: https://www.heartfoundation.org.au/your-heart/know-your-risks/healthy-weight/bmicalculator

### *Is your weight fairly stable?*

The cells that survive the fat-transfer, as mentioned before, will behave exactly as they did before the transfer. This means that if you lose a lot of weight after a fat transfer treatment, you will also lose a lot of the breast volume that came with the fat transfer. Therefore, we do not recommend this treatment to women who vary a lot in bodyweight. For the same reason it does not pay off to deliberately gain weight before a fat transfer in order to have enough fat to harvest. When you lose the weight again after the fat transfer, you will be very likely to lose some of the breast volume that you gained with the fat transfer.

### *Would you also like a breast lift?*

If you increase the volume of a slightly sagging breast, it is automatically lifted a little. That being said, the extent of the lift is limited. Because of this, a breast lift is sometimes combined with a breast augmentation. This is also possible for breast augmentations with fat transplants, but it depends on how much of a lift you would like. It is also dependent on how large the breast augmentation you desire is. The final decision on whether both procedures can be carried out simultaneously can only be made after your consultation with the plastic surgeon. If it is not deemed feasible, a breast lift can be scheduled for later, but not before 3 months after the fat transfer to the breasts.

### *Do you have patience?*

It requires some patience to undergo this type of breast augmentation. Not because there are special precautions to take before or after the surgery, but because it takes longer for the swelling to disappear when comparing to breast augmentations with implants. The fat cells that do not survive the transfer cause some swelling of the breast during the 3 months after the surgery. Therefore, fat transfers are best suited for those who can wait for the final result to eventually reveal itself.

## How is a breast lift carried out?

### *First consultation*

If you are interested in learning more about breast augmentations with fat cells, you can book a consultation. We will discuss whether the treatment can accommodate your wishes and you can get answers to any questions you may have. Your breasts are meticulously photographed for "before and after" photos, and the volume of your breasts will be measured so that we can accurately evaluate the result after the surgery.

Danish legislation on "cosmetic treatment" requires that you wait a minimum of seven days from your first consultation before you can make an appointment for the desired surgery. This serves to protect you by preventing any impulsive or rash decisions to undergo cosmetic surgery. You have the right to bring an assessor with you to your consultation, and we advise you do so. This provides you with an opportunity to discuss pros and cons for the surgery even after you have returned home.

### *Mammography*

We have decided to go with the best possible options for follow-up after surgery for this new treatment. We recommend that your breasts are evaluated thoroughly both before and after the treatment. For this reason, a so-called clinic mammography/ultrasound is a natural part of the treatment process (the price of 1500 DKK not included). When you have decided on a breast augmentation with fat cells, you can call the radiology clinic we partner with and schedule an appointment there. The examination is done by a radiologist who is specialized in breast examination. The breasts are checked for lumps and an x-ray mammography is

performed as well as an ultrasound scan of the breasts and the lymph nodes. The waiting time for a mammography is up to one week.

### *Pre-treatment of the breast?*

It has been scientifically proven that treatment of the breast with a suction cup (i.e. the BRAVA-system) for some weeks before and after a fat transfer can increase the fat cells' chances of survival.

In our clinic we have chosen not to offer this treatment. Firstly, it is very demanding for the patient to wear the suction device daily over several weeks, 10 hours a day. Secondly, it is a very expensive additional treatment. Most importantly, the results without suctions cups are currently so good that we do not believe it is worth the inconvenience and the costs.

### *The surgery*

As you arrive at the hospital on the day of the surgery, you are greeted by the nurse and assigned your room. The surgery itself is performed under full anesthesia and consists of two separate procedures:

1. First, the fat cells are harvested with gentle liposuction. During your consultation, you decide with the surgeon from where the fat cells will be harvested. During the liposuction, the cells are rinsed with saltwater in order to remove any blood, water or oil from perforated fat cells. Sometimes, the cells are also centrifuged to remove excess water.
2. Next, the cells are injected into the breast with a flat syringe through 3 small access points in each breast. The scars will be about 2-3 mm in size and are usually very subtle or completely invisible.

### *The first 24 hours after the surgery*

You will feel slightly drowsy and tired when you wake up after the surgery. That is why we keep you under close observation for a few hours. In most cases, you will be able to return to your home on the same day without needing strong pain relieving treatment. The next morning, you can shower and do non-strenuous activities. On the area where the liposuction

was performed, you will be using a compression bandage for up to 6 weeks, depending on the extent of the liposuction.

### *The subsequent weeks*

A physically non-demanding job can be resumed after 4-7 days. If your work is physically demanding, 7-10 days of rest are required. For the first 2 weeks after the surgery, you should avoid physical manipulation of the breasts, and only after 4 weeks would we recommend resuming strenuous physical activity and participation in sports with risks of hard blows to the chest.

### *Follow-up*

We would like to see you 2 weeks after surgery for thread removal and a short follow-up. 3 months after the surgery, the plastic surgeon will evaluate the result and take pictures, measure the volume of the breasts and assess with you if additional fat transplant treatment is needed to achieve your desired result. 1 year after the final treatment we will schedule for your last follow-up. Pictures are taken, and the breast volume is measured again. As a final examination, you can schedule another clinical mammography.

## Subsequent effects

### *Pain, swelling and bruises*

In the first days after the surgery there will be pain, swelling and bruises both on the breasts but more often where the liposuction was performed. This is normally at its worst a couple of days after the surgery. Much like how soreness in the legs after a long run often increases in the first couple of days after the run. The pain slowly subsides during the following weeks.

### *Infection*

There is a small risk of infection in the incisions. If this happens a tablet treatment with antibiotics may be needed.

### *Changes in sensitivity or numbing*

You can experience changes in the sensitivity of the skin or numbing of the operated areas. This can be a mix of reduced and heightened sensitivity. This subsides gradually after the surgery but may persist for a couple of weeks.

## Possible complications

### *Smaller augmentation of the breast than expected*

With very few women, only a small margin of the fat cells survive the fat transfer. It is still not clear why it happens, but it may be that the immune system "overreacts", and attacks the cells. If this happens to you, we will most likely advice against a new fat transfer treatment. Instead we will advise you to have a traditional breast augmentation with implants if you still desire to have your breasts augmented.

### *Asymmetry or unevenness of the breasts*

Experience shows that shrinkage happens somewhat symmetrically. If you are one of the few women for whom the cells survive poorly, the result may be asymmetric, irregular or temporarily harder to the touch than normal breast tissue. This stiffness consists of normal scar tissue and softens during the following months.

### *Micro-calcifications*

If larger lumps of fat cells die, minor calcifications can occur in the fat tissue around the breast. Some believe that the calcifications can be disturbing when doing mammography examinations for breast cancer at a later time. In recent years, trained radiology specialists have learnt to easily tell these calcifications from those that may appear in cancerous lumps. Furthermore, the amount of calcification associated with fat transfer to the breasts are smaller than after a breast reduction surgery. These surgeries have been performed for many years without causing any of these problems. Nonetheless, we respond to the critique of fat transplant surgeries by avoiding injection of fat cells into the breast tissue, so that no calcification is present in the breast tissue itself and thus less distracting to doctors in radiology.

## New forms of treatment

When new treatments are introduced in Denmark, the Danish Board of Health (Sundhedsstyrelsen) evaluates each case to assess if the new treatment is so different or demanding that special precautions are required. The Board of Health has deemed that fat transfers do not require any special precautions.

At Printzlau Privathospital we consider fat transfer surgery safe and secure. Several scientific publications have dealt with the risk profile of fat transfers, and there is agreement that the treatment does not cause breast cancer - not even in women who have previously had breast cancer and were expected to have had an increased risk of recurring breast cancer. Therefore, fat transfers are now in effect in all plastic surgical departments in Denmark for correcting breast defects after the removal of cancerous tissue.

Regardless, we continuously wish to help improve the development of this new treatment, so that the method can be perfected and benefit more patients in the future. Therefore, the treatment is performed as a "protocolled procedure". This means that every individual woman and her breasts are evaluated carefully before the treatment, and that a standardized method is used. There are also particular protocols for subsequent consultations and follow-up. This ensures that the results achieved at Printzlau Privathospital can be documented and used in further development of this type of treatment.