AESTHETIC OR RECONSTRUCTIVE:
ARE YOU CONSIDERING BREAST SURGERY?

Recreating harmonious bodies for a new vision of rebirth.
Dear

For personal reasons, you would like to reconstruct, modify, remodel or increase the size of your breasts. This desire is of course well founded. It is part of your well-being, self-esteem and confidence which we all need. It is also an issue of femininity and the search for harmony to give you both physical and psychological fulfilment.

Recreating harmonious bodies for a new vision of rebirth. Your surgeon will offer you only the best solutions so that you can once again look favourably at your body and offer your newfound beauty to those around you who you love.

Whatever its purpose, aesthetic or reconstructive surgery is not a trivial matter. Of course, your surgeon is there to support you along the way, in their capacity as a healthcare professional, by answering any questions you may have about the procedure.

This booklet has been produced to help you approach this stage of your life with confidence.
Nature does not deal an equal hand when it comes to breasts. Breasts vary from one woman to another in both size and shape depending on differences in glandular and adipose tissue, amongst other things. With age, the breast’s hold and its firmness decreases because the glandular tissue is gradually replaced by adipose tissue. Its volume also depends on factors such as age, skin elasticity, past pregnancies and physical activities.

The breasts are attached to the chest muscles (the pectoralis major which also contributes to the movement of the arm) that cover the thorax with connective tissue (fibres). They are supported by both the skin and a suspensory ligament. No one muscle is involved. Breast ptosis, more commonly known as sagging breasts, sometimes occurs with age and is very natural.

The breasts are covered by a multitude of nerves, blood vessels (capillaries) and lymphatic channels, in addition to milk ducts which transport milk to the nipple.

The areola is the pigmented pink or brown area around the nipple.
BREAST SURGERY
LENDING NATURE A HELPING HAND
In cosmetic surgery, implants are used to correct nature and help you regain your femininity and self-esteem. Your surgeon will talk to you about:

- breast asymmetry: a lack of symmetry between the two breasts (volume and/or shape).
- amastia or aplasia: total lack of development of the mammary gland.
- hypomastia or hypoplasia: insufficient development of the mammary gland.
- breast ptosis: sagging breasts due to having lost their hold (weight loss, pregnancy or age). In this case, breast augmentation is combined with mammoplasty to “lift” the breasts.

But in some cases, such as after breast removal surgery (mastectomy), reconstructive surgery will allow a woman to regain her image and has undeniable psychological benefits\(^{(1)}\).

Nevertheless, whether it is:

- breast augmentation for cosmetic reasons,
- the replacement of an implant,
- or reconstruction,

the result is usually much better than placing an external prosthesis in the bra\(^{(2)}\).
REBUILDING TO START AFRESH
After cancer, any woman can have breast reconstruction. This decision is a personal choice and the different options should be discussed with your doctor.

CHOOSING RECONSTRUCTION

Breast reconstruction techniques have evolved considerably in recent years. There are now many options. If subsequent treatments such as radiotherapy, chemotherapy or hormone therapy are needed, this will be reflected in the choice of reconstruction. The result is not instantaneous and several hospital stays and surgeries may be necessary to achieve the desired result. It will take several months after the surgery for the breast to finally stabilise.

CHOOSING WHEN TO HAVE RECONSTRUCTION

Breast reconstruction can be performed during the same operation as the mastectomy; this is called immediate reconstruction. The operation time is longer than delayed reconstruction but allows you, on awakening, to have a reconstructed breast, even if it will not take its final form for several months. If the reconstruction takes place during a second procedure (after the mastectomy), this is called delayed reconstruction. It will require a second operation and you managing without a breast for a longer period of time.

Some women choose not to go through breast reconstruction and wear an external breast prosthesis in their bra.
Your surgeon will explain the advantages and disadvantages of each method. They can be combined depending on your situation.

BREAST RECONSTRUCTION USING AN IMPLANT

The surgeon inserts a breast implant. More detailed information on reconstruction using an implant can be found on page 12 of this booklet. In some cases, a tissue expander can be used to create the space needed to receive the future implant. It is inserted empty then gradually filled with sterile saline solution over several months. Gradually, the covering tissues stretch and once expansion is complete, the final implant may be inserted. The surgeon will then remove the expander and position the breast implant.

BREAST RECONSTRUCTION USING BODY TISSUE

The breast can be surgically reconstructed by removing a flap of skin, some fat and muscle and can be combined, depending on the volume missing, with a breast implant. This flap is taken primarily from the abdomen or upper back. The tissue removed will be equal in volume to the breast in order to replace the tissue removed during a mastectomy or after radiotherapy. In some cases, the flap’s blood vessels will be retained. When this is not possible, the flap is grafted and microsurgery is used to connect the flap’s vessels to those in the breast region. Microsurgery may require a significantly longer operation time.
BREAST RECONSTRUCTION USING FAT TRANSFER

Using fat in breast reconstruction after a total mastectomy is an option that can also be considered. Taken from the patient’s fatty areas, it is then processed and re-injected into the mammary area to create volume. The transplanted cells will remain as alive as the surrounding tissue and will adapt to changes in your weight: your breast volume will decrease with weight loss or increase with weight gain. This procedure is generally carried out during a second operation and lasts for 1-2 hours depending on any additional actions. A special imagining assessment follow-up should be conducted one year after surgery and then regular medical checks should be carried out ideally with the same radiologist.

NIPPLE-AREOLA RECONSTRUCTION

Some patients adapt very well to the idea of not having an areola and nipple and do not wish to undergo this procedure, which is of course a personal choice. This surgery is possible when the volume of the reconstructed breast has stabilised. Reconstruction of the areola can be carried out either by creating a skin graft or with a tattoo, which is simpler but may require additional sessions. As for nipple reconstruction, this can also be carried out through the removal of part of the contralateral breast nipple, if large enough, or by using a flap (a procedure that involves taking a skin flap and forming it to mimic a nipple shape).

The choice of breast reconstruction depends on each patient, her medical condition, general health, lifestyle, emotional state and of course the size and shape of her breasts. Your doctor will help you formulate your goals. Do not hesitate to talk with your loved ones or friends who may have already been faced with this problem. They will help you make the right decision.
ANATOMY OF AN IMPLANT:

An implant consists of a flexible silicone elastomer outer shell which gives its shape to the prosthesis and interfaces with the body. This outer shell is sealed by an occlusion patch (also made of silicone) and can be either sold empty to be filled with saline by the surgeon during surgery (“inflatable” implant) or sold pre-filled with cohesive silicone gel.
ROUND OR ANATOMICAL?

• ROUND BREAST IMPLANTS:
They are available pre-filled with silicone gel or as inflatables. There are a wide variety of profiles in both cases.

• ANATOMICAL BREAST IMPLANTS:
These implants are “teardrops” shaped to mimic natural breasts. They are pre-filled with silicone gel and available in different profiles.
A SURGICAL PROCEDURE TO REGAIN CONFIDENCE

● BEFORE SURGERY
In order to operate confidently, the surgeon and anaesthetist will need to know your medical history. Your surgeon will recommend the insertion approach and to position the implant in line with your body and, as with any operation, they will provide you with the Informed Consent Form that you will have to approve and sign.

● IN THE OPERATING THEATRE
In cosmetic surgery, the implant is inserted under the gland (retroglandular position) or under the pectoralis major muscle (submuscular position). The incision is made either in the areola, the armpit or in the groove located under the breast. Scars are concealed on the periphery of the areola.
In most cases, the procedure is short and is performed in the operating theatre under general anaesthesia. In reconstruction, the surgeon uses the scar left by the mastectomy to insert the implant.
This procedure can sometimes take longer.
**RECOVERY AND RECOVERY**
Recovery takes 1 to 2 hours in the recovery room. The anaesthesia team ensure that you wake up in the best conditions possible. In certain cases, the operation can take place on an outpatient basis (the patient arrives in the morning and leaves later that day), otherwise, 1-2 days of hospitalisation may be required. This is followed by 5-10 days of rest.

**POST-OPERATIVE CARE AND FOLLOW-UP**
**IN COMPLETE TRANQUILITY**

**POSTOPERATIVE CARE**
After surgery, a dressing with a pressure bandage will prevent the prosthesis from moving. As soon as you leave the operating theatre and for about one month afterwards, your surgeon will advise you to wear a bra with good support both day and night. Some pain may be felt in the days following because the breasts are swollen and can pull on the chest muscle. Avoid any wide arm movements for at least three days, avoid driving during the first two weeks and do not carry heavy loads. Playing sports is not permitted for a minimum of 4-6 weeks. There can be no sun exposure for a month for proper healing! And of course do not sleep on your stomach...

**BOOK YOUR FOLLOW-UP**
Your surgeon will invite you to a follow-up appointment in the days following the procedure. During the first year after placement of the prosthesis, a consultation is recommended at 3, 6 and 12 months, then annually. Your surgeon will prescribe simple monitoring tests to check that everything is going well, for example, an MRI (Magnetic Resonance Imaging) or ultrasound.
Minimal postoperative pain may be experienced 2-3 days after surgery. This pain can be relieved by taking analgesics.

Haematoma or oedema in the implantation zone: a suitable medical compression on the implantation zone in the weeks following surgery will help reduce postoperative oedema.

A seroma (collection of fluid) can occur without an infection. It may have to be drained.

Temporary loss of sensitivity or heightened sensitivity of the nipple is generally observed.
KEY WORDS USED BY YOUR SURGEON
• **Approach** *(Route)*: the part of the body where the implant will be inserted.

• **Amastia, Aplasia**: total lack of development of the mammary gland.

• **Areola**: pigmented circle around the nipple of the breast.

• **Axillary**: refers to the armpit.

• **Capsule**: tissue which forms in the body around a foreign object.

• **Congenital**: exists, is present at birth (opposite: acquired).

• **Contralateral**: concerns the opposite side to the one affected.

• **Explantation**: opposite to implantation. Removing an implant from the patient’s body.

• **Cohesive gel**: compact gel that remains in one piece and has a certain consistency (as opposed to liquid or friable gel).

• **Hypomastia, breast hypoplasia**: underdeveloped mammary gland.

• **Mammectomy, mastectomy**: removal of the breast due to cancer or trauma.

• **Breast ptosis**: sagging of the mammary gland, related to the breast’s weight.

• **Physiological serum**: saline, can be easily absorbed by the body.

• **Steroids**: molecules which act as hormones.
DO YOU HAVE FURTHER QUESTIONS?

• WILL I BE ABLE TO FEEL MY PROSTHESIS?

An implant, even if it has been perfectly accepted, may still be generally noticeable, visible or detectable. It may also be possible to feel the implant’s peripheral edge. The device’s perception varies depending on its position, contents and the thickness of the mammary gland and tissues. In general, it is less visible in cases of implantation behind the muscle. In reconstructive surgery after a mastectomy, the implant is still palpable whatever the location due to the absence of the mammary gland.

• CAN YOU BREASTFEED WITH BREAST IMPLANTS?

In general, there is no contraindication for breastfeeding after implantation, whatever the type of device; however, this can be compromised if the milk ducts were cut during surgery. If breast abscesses occur during breastfeeding, the implant may need to be removed. A study by Semple et al, using silicium (found abundantly in nature and from what silicone is derived) as the unit of measurement, found that the amount of milk present in women with implants is identical to the amount found in women without implants\(^3\).
WHAT QUESTIONS MIGHT THE SURGEON ASK IN ORDER TO ASSESS THE INHERENT RISKS INVOLVED WITH THIS TYPE OF SURGERY?

- Do you take any medication?
- Do you smoke?
- Are you allergic or sensitive to any foods, medicines, dressings, types of rubber etc…?
- Have you ever developed red, swollen or large scars?
- Do you (or any members of your immediate family) suffer from nosebleeds, prolonged bleeding after trauma or from spontaneous bruising?
- Are you (or any members of your immediate family) prone to blood disorders or autoimmune diseases (e.g. lupus erythematosus, scleroderma, rheumatoid arthritis, vasculitis)?
- Do you frequently suffer from joint pain or swelling?
- When exposed to the cold, do you suffer from severe hand pain and/or do your hands turn pale?
- Have you ever experienced frequent sharp feelings of tightness in your face, arms or legs?
- Is there any chance that you might be pregnant?
- Have you suffered or do you suffer from any other diseases (e.g. a neurological or psychiatric disorder, diabetes, hormonal imbalance, etc.)?
AND IF I WOULD LIKE TO KNOW EVEN MORE?

> If you live in the UK:

- British Association of Aesthetic Plastic Surgeons (BAAPS): www.baaps.org.uk
- Association of Breast Surgery (ABS): www.associationofbreastsurgery.org.uk
- Breast Cancer Care: www.breastcancercare.org.uk
- Macmillan Cancer Support: www.macmillan.org.uk
Although rare, like all surgical and cosmetic procedures there are inherent risks involved, such as:

- Pain
- Haematoma, bleeding,
- Oedema, lymphorrhea
- Inflammation
- Infection
- Delayed wound healing
- Potential scarring
- Tissue necrosis which is promoted by smoking and further treatments such as chemotherapy and radiotherapy.
SPECIFIC RISKS LINKED TO BREAST IMPLANTS

- A change in nipple or breast sensation: this is usually temporary, but in rare cases there may be a decrease or even complete loss of nipple sensation.
- Galactorrhoea or difficulty breastfeeding.
- Extrusion of the implant.
- Dissatisfaction because the expected aesthetic result has not been fully achieved.
- Interference with standard mammography: the implant can hide part of the breast tissue (both medium- and long-term). You should inform the radiologist of this.
- Late onset of periprosthetic effusion, a build-up of fluid around the implant which results in breast swelling.
- Capsular contracture of fibrous scar tissue which forms naturally around the implant. Sometimes this capsule tightens and squeezes the implant, causing your breasts to become hard and painful.
- Deflation of fluid-filled breast implants. This is hard to predict and generally occurs quite quickly.
- Rupture of the gel-filled implant’s outer shell. There is a risk that the gel might slowly migrate outside of the scar tissue.
Surgery is required to change the ruptured or suspected ruptured implant. This rupture can occur without any obvious external signs hence the importance of clinical observation and/or regular ultrasounds and the need for a consultation in the event of violent trauma.

- Calcification of the periprosthetic capsule: Although rare, this can pose diagnostic problems as they are similar to the calcium deposits observed in breast cancer.
- Interference with standard mammography: during a standard mammographic screening, the implant may rupture if compression is exaggerated. To minimise the risk of the implant rupturing during this screening, we recommend an ultrasound or an MRI instead.
- Folds, wrinkles, displacement and turning of the implant are signs of wear, and a potential premature rupture. It can also become visible or detectable.

All these risks can arise in the short-, medium- or long-term and may require surgical reintervention. This list is not exhaustive.
The lifetime of an implant is not unlimited since it depends on possible complications and individual factors. Furthermore, loco regional complications may require an implant’s temporary or permanent explantation.

An implant will not last forever, it ages, it wears. It will therefore need replacing one day.

**ADDITIONAL INFORMATION:**

Works published in this field have not established a correlation between the most common breast cancers, “autoimmune” diseases and implants pre-filled with silicone gel.

Anaplastic large cell lymphoma (ALCL) which is associated with breast implants is a very rare pathology that has only recently been identified. This prognosis should only be considered in cases of proven clinical symptoms (recurrent periprosthetic effusion, redness of the breast, enlarged breasts or a perceptible mass).

*Your surgeon will give you all the information you need and you will be given an Informed Consent Form that you will need to complete and sign before surgery.*
Bibliography:
(2) Estelle Piotto. Évaluation des implants mammaires, prothèses d’expansion tissulaire et prothèses externes de sein. HAS. 2009; P7 et P9