

Breast Reconstruction with
NATRELLE[®]
Smooth Gel-Filled
Breast Implants



Table of Contents

Glossary.....	3
1. Considering Silicone Gel-Filled Breast Implant Surgery	8
1.1 What Gives the Breast Its Shape.....	8
1.2 What is a Silicone Gel-Filled Breast Implant?.....	9
1.3 Natrelle Silicone Gel-Filled Breast Implants	9
1.4 Are Silicone Gel-Filled Breast Implants Right For You?	10
1.5 Important Factors You Should Consider in Choosing Gel-Filled Implants	11
2.0 Breast Implant Benefits and Risks.....	13
2.1 What are the Benefits?	13
2.2 What are the Potential Complications?	13
2.3 What are Other Reported Conditions.....	19
3.0 Surgical Considerations for Breast Reconstruction.....	19
3.1 Should You Have Primary Breast Reconstruction.....	20
3.2 What are the Options in Primary Breast Reconstruction	20
3.3 What are the Choices in Primary Reconstruction.....	20
3.4 Breast Reconstruction with Breast Implants.....	21
3.5 Reconstruction Incision Sites.....	21
3.6 Surgical Settings and Anaesthesia	21
3.7 The Timing of Your Primary Breast Implant Reconstruction.....	22
3.8 What is the Primary Breast Implant Reconstruction Procedure?.....	22
3.9 Primary Breast Reconstruction Without Implants: Tissue Flap Procedures.....	24
3.10 General Surgical Considerations	26
3.10.1 Choosing a Surgeon	26
3.10.2 What are Choices and Options Associated with the Surgery?.....	26
Other Factors to Consider In Revision-Reconstruction Surgery	28
4.0 Follow Up Examinations.....	28
4.1 Breast Self Examinations.....	28
4.2 Screening for Implant Rupture	28
4.3 Mammography.....	28
5.0 Additional Information	29
5.1 Device Identification Card.....	29
5.2 If you Experience a Problem.....	29
5.3 Confidence Plus Limited Warranties	29

Glossary

Note: A glossary word appears in [blue](#) the first time it occurs in the text of this brochure.

Anaplastic large cell lymphoma (ALCL)	ALCL is not breast cancer; it is a rare type of non-Hodgkin's lymphoma, a cancer involving the cells of the immune system
Areola	The pigmented or darker colored area of skin surrounding the nipple of the breast.
Asymmetry	Lack of proportion of shape, size, and/or position between the two breasts.
Autologous	The use of your own tissue (fat, skin, or muscle) for breast reconstruction
Autoimmune disease	A disease in which the body mounts an "attack" response to its own tissues or cell types. Normally, the body's immune mechanism is able to distinguish clearly between what is a normal substance and what is foreign. In autoimmune diseases, this system becomes defective and mounts an attack against normal parts of the body, causing tissue injury. Certain diseases such as rheumatoid arthritis, lupus, and scleroderma are considered to be autoimmune diseases.
Axillary	Pertaining to the armpit area.
Biocompatible	The condition of being compatible with living tissues or systems without being toxic.
Bilateral	Affecting the right and left sides of the body (i.e., both breasts)
Biopsy	The removal and examination of tissues, cells, or fluid from the body.
Breast augmentation	A surgical procedure to increase breast size. For this document, it refers to placement of a breast implant.
Breast implant	An internal artificial device or implant intended to replace the breast.
Breast mass	A lump in the breast.
Breast reconstruction	A surgical procedure to replace breast tissue that has been removed due to cancer or trauma or that has failed to develop properly due to a severe breast abnormality. For this document, it refers to placement of a breast implant. The first time a breast implant is placed, it is called primary

reconstruction. All subsequent times the implant is replaced, it is called revision-reconstruction.

Calcification

Process of hardening by calcium salts.

Capsular contracture

A tightening of the tissue capsule surrounding an implant, resulting in firmness or hardening of the breast and in squeezing of the implant if severe. Capsular contracture is classified by Baker Grades. Grades III or IV are the most severe. Grade III often results in the need for additional surgery (reoperation) because of pain and possibly abnormal appearance. Grade IV usually results in the need for additional surgery (reoperation) because of pain and unacceptable appearance. Capsular contracture II may also result in the need for additional surgery. Capsular contracture is a risk for implant rupture. Below is a description of each Baker Grade.

- Baker Grade I – Normally soft and natural appearance
- Baker Grade II – A little firm, but breast looks normal
- Baker Grade III – More firm than normal, and looks abnormal (change in shape)
- Baker Grade IV – Hard, obvious distortion, and tenderness with pain

Capsule

Scar tissue which forms around the breast implant. Sometimes this capsule squeezes the implant, resulting in capsular contracture.

Capsulectomy

Surgical removal of the scar tissue capsule around the implant.

Capsulorrhaphy

Surgical stitching of a tear in the scar tissue capsule around the implant.

Capsulotomy (closed)

An attempt to break the scar tissue capsule around the implant by pressing or pushing on the outside of the breast. This method does not require surgery but is a known risk for rupture of the implant and is contraindicated.

Capsulotomy (open)

Surgical incision into the scar tissue capsule around the implant.

Cc

Cubic centimeter – the measurement used for breast volume

Congenital anomaly

An abnormal development in part of the body, present in some form since birth.

Contraindication

A use that is improper and should not be followed. Failure to follow contraindications identified in the labeling could cause serious harm.

Contralateral

Opposite side.

Delayed wound healing	Delayed progress in the healing of an opened wound.
Displacement	Movement of the implant from the usual or proper place.
Double capsule	The implant and breast are found as 2 separated layers, or capsules, rather than as one unified capsule
Epidemiological	Relating to the science of explaining the relationships of factors that determine disease frequency and distribution.
Extracapsular rupture	A type of rupture in which the silicone gel is outside of the scar tissue capsule surrounding the implant.
Extrusion	Skin breakdown with the pressing out of the implant through the surgical wound or skin.
Fibrous tissues	Connective tissues composed mostly of fibers.
Granuloma	A lump or mass made of inflammatory cells surrounding a foreign substance due to longstanding inflammation.
Haematoma	A collection of blood within a space.
Hypertrophic scarring	An enlarged scar remaining after the healing of a wound.
Immune response	A bodily response to the presence of a foreign substance.
Infection	Invasion with microorganisms (for example, bacteria, viruses). An infection usually results in fever, swelling, redness, and/or pain.
Inflammation	The response of the body to infection or injury that is characterised by redness, swelling, warmth, pain, and/or loss of function.
Inframammary	Below the breast.
Inframammary fold	The crease at the base of the breast and the chest wall.
Inframammary incision	An incision made in the fold below the breast.
Inpatient surgery	A surgical procedure in which the patient is required to stay overnight in the hospital.
Intracapsular rupture	A type of rupture in which the silicone gel remains inside the scar tissue capsule surrounding the implant.
Lactation	The production and secretion of milk by the breast glands
Low molecular weight silicones	Components of silicone of smaller molecular weight that may bleed (leak) out of silicone gel.

MRI	Magnetic resonance imaging. A radiographic examination that currently has the best ability to detect rupture of gel-filled breast implants.
Malposition	Implant malposition or displacement is when the implant is not in the correct spot in the breast. This could have been due to incorrect placement of the implant during the surgery or due to shifting of the implant position over time.
Mammary	Pertaining to the breast.
Mammography	A type of X-ray examination of the breasts used for detection of cancer.
Mammoplasty	Plastic surgery of the breast.
Mastopexy	Plastic surgery to move sagging breasts into a more elevated position.
Metastatic Disease	Spreading of cancer cells from the original site to other parts of the body.
Migration	Movement of silicone materials outside the breast implant.
Necrosis	Death of cells or tissues.
Outpatient surgery	A surgical procedure in which the patient is not required to stay in the hospital overnight.
Palpability	The ability to feel the implant.
Palpate/palpable	To feel with the hand.
Pectoralis	Major muscle of the chest.
Peri-areolar	Around the darkened or pigmented area surrounding the nipple of the breast.
Plastic surgery	Surgery intended for the improvement of appearance of the body.
Postoperatively	After surgery.
Primary breast augmentation	The first time a breast implant is placed for the purpose of breast augmentation.
Ptosis	Breast sagging that is usually the result of normal aging, pregnancy, or weight loss.
Reoperation	An additional surgery after your first breast implantation.

Revision-augmentation	Refers to the correction or improvement of a primary augmentation. In the context of this document, it refers to surgical removal and replacement of breast implants that were placed originally for primary breast augmentation.
Rupture	A tear or hole in the implant shell. Silicone implant ruptures may be silent or symptomatic. Ruptures can be intracapsular or extracapsular.
Saline	A solution that is made up of water and a small amount of salt.
Scar revision	A surgical procedure to improve the appearance of a scar.
Seroma	A build-up of the watery portion of the blood in a tissue location.
Silent rupture	A breast implant rupture without symptoms and which is not apparent except through appropriate imaging techniques such as MRI. Most silicone gel-filled breast implant ruptures are silent. (See symptomatic rupture below).
Silicone elastomer	A type of silicone that has elastic properties similar to rubber.
Subglandular placement	Placement of a breast implant underneath and within the breast glands but on top of the chest muscle.
Submuscular placement	Placement of a breast implant wholly or partially underneath the chest muscle.
Surgical incision	A cut made to body tissue during surgery.
Symptom	Any perceptible change in the body or its functions that indicates disease or a phase of a disease.
Symptomatic	Any evidence or sign of disease or disorder reported by the patient.
Symptomatic rupture	A breast implant rupture that is associated with symptoms (such as lumps, persistent pain, swelling, hardening, or change in implant shape). Some silicone breast implant ruptures are symptomatic, but most are silent.
Systemic	Pertaining to or affecting the body as a whole.

1. Considering Silicone Gel-Filled Breast Implant Surgery

You may be considering [breast implant](#) surgery to restore your breast shape after a [mastectomy](#) or an injury that resulted in either partial or total loss of the breast(s) or to correct a birth defect. This is referred to as [breast reconstruction](#). Or you may need revision of a previous breast reconstruction, which is called [revision-reconstruction](#). Whether you decide to have breast reconstruction depends on your own individual case, medical condition, general health, lifestyle, emotional state and breast size and shape. You may wish to speak with your family, friends, breast implant support groups, and breast cancer support groups to help you in making this decision.

If you are considering breast reconstruction and do not have a plastic surgeon, ask your general surgeon for the names of experienced, board-certified plastic surgeons in your area. Your general surgeon, plastic surgeon and [oncologist](#) should work together to plan your mastectomy and reconstruction procedure to give you the best possible result.

Allergan has prepared this information to help you better understand the breast implant procedure and assist you in making an informed decision about breast reconstruction or revision-reconstruction surgery. It will help to answer some of the questions you may have about the surgery and about breast implants in general. It will also provide you with specific information about the risks and benefits of Allergan's *NATRELLE*[®] gel-filled breast implant collection.

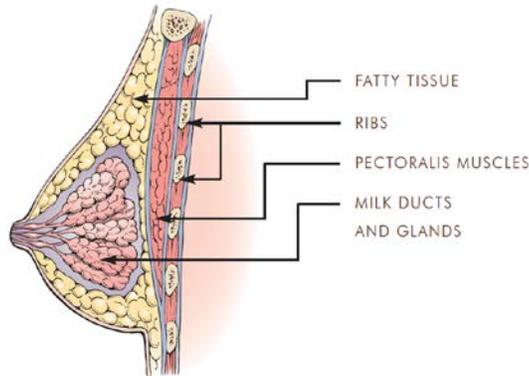
This information cannot and should not replace discussing your surgery with your plastic surgeon. Your decision whether or not to get breast implants should be based on realistic expectations of the outcome. There is no guarantee that your results will match those of other women. Your results will depend on many individual factors, such as your overall health (including age), chest structure, breast/nipple shape and position, skin texture, healing capabilities (which may be slowed by radiation and chemotherapy treatment, smoking, alcohol, and various medications), tendency to bleed, prior breast surgery, surgical team's skill and experience, type of surgical procedure and type and size of implant. Make sure you speak with your surgeon about your expectations of the results, as well as what you can expect regarding the length of the surgery, your recovery and any risks and potential complications of the surgery. Ask questions. You and your surgeon will work together to help achieve the body image you desire.

As part of your decision, it is recommended that both you and your surgeon sign Allergan's consent to surgery form that confirms your understanding of what you have read and what you have learned from your surgeon. This Allergan consent document will be provided to you by your surgeon.

Review and consider this information before deciding whether to have [primary breast reconstruction](#) surgery. In the case of a revision-reconstruction however your surgeon may find it medically necessary to perform surgery quickly.

1.1 What Gives the Breast Its Shape

The breast consists of milk ducts and glands, surrounded by fatty tissue that provides its shape and feel. Beneath the breast is the chest muscle (pectoralis major muscle).



Factors such as pregnancy (when milk glands are temporarily enlarged), rapid weight loss, and the effect of gravity as you age combine to stretch the skin, which may cause the breast to droop or sag. However, it is important to realise that implants are used to make the breast larger or to restore/replace breast tissue. The implants alone may not adequately lift the breast or correct the effects of pregnancy, weight loss or skin stretching. Your surgeon may suggest additional procedures at the time of the breast augmentation, such as [mastopexy](#), to help achieve improved breast lift.

Breast cancer surgery can significantly change the shape of the breast, to a greater or lesser degree, depending on a number of factors. These factors include how much breast tissue is removed in a partial or complete mastectomy; how much skin is removed at the time of surgery; and how much tissue reaction or scarring is in the remaining breast and skin in response to chemotherapy or radiation therapy.

1.2 What is a Silicone Gel-Filled Breast Implant?

A gel-filled breast implant is a sac (implant shell) of [silicone elastomer](#) (rubber) filled with silicone gel. It is surgically implanted either under your breast tissue or under your chest muscle.

1.3 NATRELLE® Silicone Gel-Filled Breast Implants

NATRELLE® breast implants are gel-filled breast implants. Allergan offers NATRELLE® breast implants in a round shape with a smooth shell surface and different silicone gel fillers that are designed to simulate natural breast tissue (TruForm® 1 and TruForm® 2). The implants are available in a variety of styles, profiles, and sizes. Your surgeon will discuss these options with you and may make recommendations to you based upon the physical contours of your body and the look you are trying to achieve. Carefully review the section on complications so that you may make an informed choice.

Product name	Styles	Shape	Surface	Profiles	Size (g)
NATRELLE® INSPIRA® Truform 2 gel, Smooth	SSLP, SSM, SSF, SSX, SSL	Round	Smooth	Low profile Plus, Moderate, Full, Extra Full, Low	110-800

NATRELLE® INSPIRA® Truform 1 gel	SRM, SRL, SRF, SRX, SRLP	Round	Smooth	Moderate, Low, Full, Extra Full, Low profile Plus,	110-800
NATRELLE® Truform1 Gel	45, 40	Round	Smooth	High, Standard	80-560

1.4 Are Silicone Gel-Filled Breast Implants Right For You?

NATRELLE® gel-filled breast implants are indicated for females for the following uses (procedures):

- **Breast augmentation for women at least 18 years old.** Breast augmentation includes primary breast augmentation to increase the breast size, as well as revision surgery to correct or improve the result of a primary breast augmentation surgery.
- **Breast reconstruction.** [Breast reconstruction](#) includes primary reconstruction to replace breast tissue that has been removed due to cancer or trauma or that has failed to develop properly due to a severe breast abnormality. Breast reconstruction also includes revision surgery to correct or improve the result of a primary breast reconstruction surgery.

A separate patient brochure is available for those women considering breast augmentation surgery and should be read prior to reaching a decision to undergo breast augmentation.

[Contraindications](#)

A contraindication is a condition or circumstance that, if present, means a procedure should not be done. Contraindications for breast implant surgery are discussed in this section.

Breast implant surgery should not be performed in:

- Women with tissue covering determined to be inadequate or unsuitable by the surgeon because there may not be enough tissue to cover the breast implant
- Women with active [infection](#) anywhere in their body. The implant will make the infection much harder to treat should the infection move into the breast.
- Women with existing cancer or pre-cancer of their breast who have not received adequate treatment for those conditions. Radiation and chemotherapy treatments may increase the risk of some complications seen with breast implants. Also, breast implants may interfere with radiation or chemotherapy treatments.
- Women using drugs that may result in high surgical risk and/or significant postoperative complications, including drugs that would interfere with blood clotting.
- Women demonstrating or showing signs of psychological instability (i.e., an inappropriate attitude or motivation)

- Women who are currently pregnant or nursing. Surgery may interfere with the safety of pregnancy/nursing. Since breast augmentation is an elective surgery, it should be postponed until you are no longer pregnant or nursing.

Precautions

A precaution is information that warns the reader of a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. The following are precautions; safety and effectiveness have not been established in patients with the following:

- Ptotic breasts where nipple falls below the inframammary fold, without concurrent mastopexy.
- To varying degrees, radiation damage, ulceration, compromised vascularity or history of compromised wound healing which may affect tissue covering suitability.
- Previous repeated contour correction failures.
- Patients about to undergo radiation therapy and/or chemotherapy as this may make the use of breast implants and tissue expanders more difficult and increase the risk of complications.
- Physiological condition determined by the surgeon to pose unduly high risk of surgical and/or postoperative complications. To varying degrees, obesity, smoking, diabetes, autoimmune disease, coagulopathy, chronic lung or severe cardiovascular disease may affect patient suitability for surgical implantation.

1.5 Important Factors You Should Consider in Choosing Gel-Filled Implants

- You should be aware that there are many factors that will affect the outcome and timing of your reconstruction with breast implants, such as the stage of your disease, the type and extent of cancer removal surgery you have had, the amount of skin and soft tissue available for reconstruction and additional treatments such as chemotherapy and radiation, which you may require.
- ***Mammary implants have a limited lifetime.*** This implant may have to be removed or replaced which is classified as a revision surgery. You may need additional unplanned surgeries on your breasts because of complications or unacceptable cosmetic outcomes. These additional surgeries can include implant removal with or without replacement or they can include other surgical procedures. There is no guarantee that you will have a satisfactory cosmetic outcome from any reoperation. When you have your implants replaced (revision-reconstruction), your risk of future complications increases compared to first time (primary reconstruction) surgery. However, it is not possible to predict the lifetime of an individual device because there many factors that can influence device lifetime including anatomy, general health, lifestyle and unforeseen external influences.
- Many of the changes to your breast following implantation are irreversible (cannot be undone). If you later choose to have your implant(s) removed and not replaced, you may

experience unacceptable dimpling, puckering, wrinkling or other cosmetic changes of the breast, which can be permanent.

- If you undergo a mastectomy, removal of the breast tissue eliminates the ability to breastfeed with the removed breast. In addition, contralateral breast augmentation may affect your ability to breastfeed, either by reducing or eliminating milk production.
- **Rupture** of a silicone gel-filled breast implant is most often without **symptoms** (silent). This means that most of the time neither you nor your surgeon will know that your implants have a rupture. Imaging studies may be required to diagnose rupture.
- It is recommended that you take a multi-step approach to monitor the integrity of the implant throughout the lifetime of the device beginning with a patient self-examination. A radiological assessment may be required if a new symptom or sign is suspected or as part of a periodic review with a physician. If the imaging assessment is negative or inconclusive, discuss further options with your surgeon.
- With breast implants, routine screening **mammography** for breast cancer will be more difficult. If you are of the proper age for mammography screening, you should continue to undergo routine mammography screening as recommended by your primary care physician. The implant may interfere with finding breast cancer during mammography. Because the breast and implant are squeezed during mammography, an implant may rupture during the procedure. More x-ray views are necessary for women with breast implants; therefore you will receive more exposure to radiation. However, the benefit of having the mammogram to find cancer outweighs the risk of the additional x-rays. Be sure to inform the mammography technologist that you have implants.
- You should perform an examination of your breasts every month for cancer screening; however, this may be more difficult with implants. You should ask your surgeon to help you distinguish the implant from your breast tissue.
- You should perform an examination of your breasts for the presence of lumps, swelling, hardening, or change in implant shape, which may be signs of **symptomatic rupture** of the implant. Any of these symptoms, and/or if you notice persistent pain, should be reported to your surgeon and possibly evaluated with additional tests to screen for rupture.
- The timing for any revision following reconstruction surgery should be discussed with your surgeon so that all issues such as the potential effects of radiation, chemotherapy and additional cancer surgery or treatments can be fully discussed.
- You should inform any other doctor who treats you of the presence of your implants to minimise the risk of damage to the implants.
- **Closed capsulotomy** (use of pressure or force to “break up” the **capsule**) should not be used to treat **capsular contracture**. Closed capsulotomy can cause implant rupture.
- Smoking may interfere with the healing process after surgery.

- It is important that you read this entire brochure because you need to understand the risks and benefits and to have realistic expectations of the outcome of your surgery.

2.0 Breast Implant Benefits and Risks

Undergoing any type of surgical procedure involves risks (some serious) such as the effects of anesthesia, infection, swelling, redness, bleeding, pain and even death which need to be balanced against the benefits of the surgery itself. There are potential complications specific to breast implant surgery and breast implants, as described in Section 2.2.

At the end of this brochure is a list of published studies used to gather the information discussed in the sections below. These studies may be helpful to you if you wish to learn more about a specific complication or condition. However, the reference list is not complete because studies are being conducted all the time. Your physician may have other resources for further reading. It should be noted that the references include augmentation and/or reconstruction patients, as well as implants of different types and from a variety of manufacturers.

2.1 What are the Benefits?

Breast reconstruction can replace breast tissue that has been removed due to cancer or trauma or that has failed to develop properly due to a severe abnormality. In addition, revision-reconstruction can correct or improve the result of a primary reconstruction surgery.

Breast reconstruction has the potential to offer both physical and psychological benefits to women, including facilitating emotional healing after cancer and regaining body symmetry.^{1,3-8} Many studies have reported that a majority of breast implantation patients are satisfied with the results of their surgery.

Expected benefits include facilitating emotional healing after cancer, eliminating external prostheses, regaining body symmetry, allowing freedom in clothing and physical activities and improving sexual or interpersonal relationships.

2.2 What are the Potential Complications?

- **Rupture**

Breast implants are not lifetime devices. Breast implants can rupture when the shell develops a tear or hole. Ruptures can occur at any time after implantation but they are more likely to occur the longer the implant is implanted. The following things may cause your implant to rupture: damage by surgical instruments; stressing the implant during implantation which may weaken it; folding or wrinkling of the implant shell; excessive force to the chest (for example, during closed capsulotomy, which is contraindicated); trauma; compression during mammographic imaging and severe capsular contracture. Breast implants may also simply wear out over time.

Laboratory studies have identified some of the types of rupture for Allergan's product; however, it is not known whether these tests have identified all causes of rupture. Long term Allergan Post-Market Surveillance data over fourteen years on gel-filled breast implants indicate a rupture rate between 0.519% - 0.670%. Allergan's US clinical study data on gel implants indicate a rupture rate between 7.7% - 9.7% at 10 years.

Silicone gel-filled breast implant ruptures are most often silent. This means that most of the time neither you nor your plastic surgeon will know if the implant has a tear or hole in the shell. However, sometimes there are symptoms associated with gel implant rupture. These symptoms include hard knots or lumps surrounding the implant or in the armpit, change or loss of size or shape of the breast or implant, pain, tingling, swelling, numbness, burning or hardening of the breast.

If your surgeon determines you have signs or symptoms of rupture, you should discuss with him or her having the implant and any gel removed, with or without replacement of the implant. It also may be necessary to remove the tissue capsule as well as the implant, which will involve additional surgery, with associated costs. If you have symptoms such as breast hardness, a change in breast shape or size and/or breast pain, you should discuss with your surgeon additional tests or procedures (such as radiological assessments) to determine whether rupture is present.

There are also consequences of rupture. If rupture occurs, silicone gel may either remain within the scar tissue capsule surrounding the implant ([intracapsular rupture](#)), move outside the capsule ([extracapsular rupture](#)) or gel may move beyond the breast (migrated gel). There is also a possibility that rupture may progress from intracapsular to extracapsular and beyond. There have also been health consequences of implant rupture reported in the literature. Keep in mind some doctors and scientists disagree as to the validity of these reports. These reports were in women who had implants from a variety of manufacturers and implant models.

- Ruptured breast implants have been associated with breasts becoming hard, changing shape or size and becoming painful. These symptoms are not specific to rupture, as they also are experienced by women who have capsular contracture.
- There have been rare reports of the silicone gel from implants moving to nearby locations such as the chest wall, armpit or upper abdominal wall and even as far as the arm or the groin. This migrating gel has damaged nerves, formed granulomas and/ or broken down tissues in direct contact with the gel in a few cases. There have been reports of silicone in the liver of women with silicone breast implants. Silicone gel material has moved to lymph nodes in the armpit, even in women whose implants did not appear to have ruptured, leading to lymphadenopathy.
- Concerns have been raised that women with ruptured implants are more likely to develop connective tissue disease, rheumatic disease, fatigue or fibromyalgia. To determine if these diseases are related to ruptured implants, a number of studies have evaluated many women with breast implants. Only one small study distinguished between women with ruptured or intact implants. Most doctors and researchers agree that there is no evidence that ruptured implants or migrated gel causes any disease that affects the whole body (systemic disease) like Connective Tissue Disease (CTD) or cancer.

- **Additional Surgeries (Reoperations)**

You should assume that you will need to have additional surgeries (reoperations). The reasons for reoperation include patients who may decide to change the size or type of their implants, requiring additional surgery. In addition, problems such as rupture, capsular contracture, [hypertrophic scarring](#) (irregular, raised scar), [asymmetry](#), infection and shifting can require additional surgery.

- **Capsular Contracture**

The scar tissue (capsule) that normally forms around the implant may tighten and squeeze the implant making your breast feel firmer and sometimes painful. This is called capsular contracture. Capsular contracture may be more common following infection, haematoma and [seroma](#) and the chance of it happening may increase over time. Capsular contracture occurs more commonly in revision-reconstruction than in primary reconstruction. Because you may have your initial implants replaced, you should be aware that your risk of capsular contracture increases with revision-augmentation. Capsular contracture is a risk factor for implant rupture and it is one of the most common reasons for reoperation.

Symptoms of capsular contracture range from mild firmness and mild discomfort to severe pain, distorted shape of the implant and [palpability](#) (ability to feel the implant). Capsular contracture is graded into 4 Baker Grade levels depending on its severity. Baker Grades III and IV are considered severe and often additional surgery is needed to correct these grades:

Baker Grade I:	the breast is normally soft and looks natural
Baker Grade II:	the breast is a little firm but looks normal
Baker Grade III:	the breast is firm and looks abnormal
Baker Grade IV:	the breast is hard, painful, and looks abnormal

Additional surgery may be needed in cases where pain and/or firmness are severe. This surgery ranges from removal of the implant capsule tissue to removal and possible replacement of the implant itself. This surgery may result in loss of your breast tissue. Capsular contracture may happen again after these additional surgeries. Capsular contracture may increase the risk of rupture.

- **Implant Removal**

Because these are not lifetime devices, the longer you have your implants the more likely it will be for you to have them removed for any reason, either because of dissatisfaction, an unacceptable cosmetic result or a complication such as severe capsular contracture. Having your implants removed and replaced increases your chances of getting future complications.

Most women who have their implants removed have them replaced with new implants, but some women do not. If you choose not to replace your implants, you may have cosmetically unacceptable dimpling, puckering, wrinkling and/or other potentially permanent cosmetic changes of the breast following removal of the implant. Even if you have your implants replaced, implant removal may result in loss of your breast tissue. Also, implant replacement increases your risks of future complications. For example, the risks of capsular contracture and reoperation increase for patients with implant replacement compared to first time placement. You should consider the possibility of having your implants replaced and its consequences when making your decision to have implants.

- **Infection**

Infection can occur with any surgery or implant. Most infections resulting from surgery appear within a few days to weeks after the operation. However, infection is possible at any time after surgery. In addition, breast and nipple piercing procedures may increase the possibility of infection. Infections in tissue with an implant present are harder to treat than infections in tissue without an implant. If an infection does not respond to antibiotics, the implant may have to be removed and another implant may be placed after the infection is resolved (cleared up). As with many other surgical procedures, in rare instances, toxic shock syndrome has been noted in women after breast implant surgery, and it is a life-threatening condition. Symptoms include sudden fever, vomiting, diarrhoea, fainting, dizziness and/or sunburn-like rash. You should contact a doctor immediately for diagnosis and treatment if you have these symptoms.

- **Necrosis**

Necrosis is the death of cells or tissues. This may prevent or delay wound healing and require surgical correction, which may result in additional scarring and/or loss of your breast tissue. Implant removal may also be necessary. Factors associated with increased necrosis include infection, use of steroids, smoking, chemotherapy/radiation, and excessive heat or cold therapy.

- **Haematoma/Seroma**

Haematoma is a collection of blood within the space around the implant and a seroma is a build-up of fluid around the implant. Having a haematoma and/or seroma following surgery may result in infection and/or capsular contracture later on. Symptoms from a haematoma or seroma may include swelling, pain and bruising. If a haematoma or seroma occurs, it will usually be soon after surgery. However, this can also occur at any time after injury to the breast. While the body absorbs small haematomas and seromas, some will require surgery, typically involving draining and potentially placing a surgical drain in the wound temporarily for proper healing.

A small scar can result from surgical draining. Implant rupture also can occur from surgical draining if there is damage to the implant during the draining procedure.

- **Extrusion**

Extrusion is when the breast implant comes through your skin. This may occur, for example, when your wound has not closed or when breast tissue covering your implants weakens. Radiation therapy has been reported to increase the likelihood of extrusion. Extrusion requires additional surgery and possible removal of the implant which may result in additional scarring and/or loss of your breast tissue.

- **Wrinkling/Rippling and Folds**

Palpable or even visible wrinkles and folds may occur. Folds may result in thinning and erosion of nearby tissue and extrusion of the breast implant. Folds may also result in crease-fold failure and implant rupture. If wrinkling occurs, the breast implant may be replaced with an implant that has a different fill or shape.

- **Pain**

Pain of varying intensity and length of time may occur and persist following breast implant surgery. In addition, improper size, placement, surgical technique or capsular contracture may result in pain. You should tell your surgeon about significant pain or if your pain persists.

- **Changes in Nipple and Breast Sensation**

Feeling in the nipple and breast can increase or decrease after implant surgery. The range of changes varies from intense sensitivity to no feeling in the nipple or breast following surgery. While some of these changes can be temporary, they can also be permanent, and may affect your sexual response or your ability to nurse a baby. (See the paragraph on breastfeeding below).

- **Breast-feeding**

Breast-feeding difficulties have been reported following breast surgery, including breast reduction and breast reconstruction. If your surgeon uses a peri-areolar surgical approach (an incision around the coloured portion surrounding the nipple), it may further increase the chance of breast-feeding difficulties.

- **Unsatisfactory Results**

Unsatisfactory results such as wrinkling, asymmetry, implant [displacement](#) (shifting), incorrect size, unanticipated shape, implant palpability, scar deformity, and/or hypertrophic scarring, may occur. Some of these results may cause discomfort. Pre-existing asymmetry may not be entirely correctable by implant surgery. Revision surgery may be recommended to maintain patient satisfaction but carries additional considerations and risks. Selecting an experienced plastic surgeon may minimise, but not necessarily prevent, unsatisfactory results.

- **Ptoisis**

Ptoisis or sagging of the breasts occurs naturally in all breasts over time. In the case of ptoisis, a mastopexy (breast lift) may be performed and/or the breast implant may be replaced by another device.

- **Calcium Deposits in the Tissue Around the Implant (Calcification)**

Calcium deposits can form in the tissue capsule surrounding the implant. Symptoms may include pain and firmness. Deposits of calcium can be seen on mammograms and can be mistaken for possible cancer, resulting in additional surgery for biopsy and/or removal of the implant to distinguish calcium deposits from cancer. If additional surgery is necessary to examine and/or remove [calcifications](#), this may cause damage to the implants. Calcium deposits also occur in women who undergo breast reduction procedures, in patients who have had haematoma formation, and even in the breasts of women who have not undergone any breast surgery. The occurrence of calcium deposits increases significantly with age.

- **Breast Tissue Atrophy/Chest Wall Deformity**

The pressure of the breast implant may cause breast tissue thinning (with increased implant visibility and palpability) and chest wall deformity. This can occur while implants are still in place or following implant removal without replacement. Either of these conditions may result in additional surgeries and/or unacceptable dimpling/puckering of the breast.

- **Gel Diffusion**

Small quantities of [low molecular weight \(LMW\) silicone](#) compounds, as well as platinum (in zero oxidation state), have been found to diffuse (leak) through an intact implant shell. The evidence is mixed as to whether there are any clinical consequences associated with gel diffusion. For instance, studies on implants implanted for a long duration have suggested that such diffusion may be a contributing factor in the development of capsular contracture and lymphadenopathy. However, evidence against gel diffusion being a significant contributing

factor to capsular contracture and other local complications is provided by the fact that there are similar or lower complication rates for silicone gel-filled breast implants than for saline-filled breast implants. Saline-filled breast implants do not contain silicone gel and, therefore, gel diffusion is not an issue for those products. Furthermore, toxicology testing has indicated that the silicone material used in the implants does not cause toxic reactions when large amounts are administered to test animals. It should also be noted that studies reported in the literature have demonstrated that the low concentration of platinum contained in breast implants is in the zero oxidation (most biocompatible) state.

Allergan performed a laboratory test to analyse the silicones and platinum (used in the manufacturing process), which may diffuse out of intact implants into the body. Over 99% of the LMW silicones and platinum stayed in the implant. The overall body of available evidence supports that the extremely low level of gel diffusion is of no clinical consequence.

- **Breast Implant Associated Anaplastic Large Cell Lymphoma**

If you have breast implants you have a very small but increased risk of developing breast implant associated anaplastic large cell lymphoma or BIA-ALCL. BIA-ALCL is not breast cancer — it is a rare type of non-Hodgkin's lymphoma (cancer of the immune system). In most cases, BIA-ALCL is found in the scar tissue and fluid near the implant, but in some cases, it can spread throughout the body. In the cases that have spread beyond the scar tissue and fluid near the implant, rare cases of death have been reported.

Most patients were diagnosed with BIA-ALCL when they sought medical treatment for implant-related symptoms such as swelling, pain, lumps or asymmetry that developed after their initial surgical sites were fully healed. In the cases known to date, BIA-ALCL was diagnosed years after the breast implant was placed. The earliest report was one year after implant placement and the latest was 23 years after the implant surgery. About half the cases occurred within the first 7 years after implant. BIA-ALCL was most often diagnosed in women who had textured implants. The textured implant may have been placed at the most recent surgery or at any other prior breast implant operation.

If you develop swelling or pain around your breast implants, be sure to talk to your health care provider. Your health care provider should consider the possibility of BIA-ALCL if, after you have recovered from your breast implant operation, you later notice changes in the way your breast looks or feels — including swelling or pain around the implant. If your health care provider suspects, they will refer you to an appropriate specialist for evaluation which may involve obtaining fluid and some tissue samples from around your breast implant. If a diagnosis of BIA-ALCL is confirmed, the doctor will develop an individualised treatment plan for you. Because of the small number of cases worldwide and the variety of available treatment options, there is no single defined treatment. However, if you are diagnosed with BIA-ALCL, the National Comprehensive Cancer Network (NCCN) recommends removing the implant and the surrounding tissue.

If you have breast implants you should monitor them and follow your routine medical care. You do not need to take any additional steps. It is not necessary to remove your implants if you have no symptoms without a diagnosis of BIA-ALCL.

Education and information regarding the risk and benefits of breast implants should be part of the consent process. Your surgeon is responsible for providing this information to you and will

often have information in addition to this leaflet for you to read. A patient implant card should also be provided to you following surgery. This card provides you with sufficient information to identify the breast implant(s) you have. It also has contact details for the manufacturer should you want more information or to report any issues

Ask your surgeon if they contribute to a breast implant registry in your country. Registries collect details on your implant, surgery, and complications you may have. Including your details in a registry helps us to track the long-term safety and performance of breast implants. It also helps in notifying you and other patients of any safety concerns related to breast implants. Here are links to some breast implant registries that may be available to you:

Australian Breast Device Registry: <https://www.abdr.org.au>

Dutch Breast Implant Registry: <https://dica.nl/dbir/about-dbir> or <https://dica.nl/dbir/home>

United Kingdom Breast and Cosmetic Implant Registry <https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/breast-and-cosmetic-implant-registry>

Ask your surgeon about how your personal data will be protected in the registry.

You are encouraged to contact the supplier of your breast implants or your country's health authority if you have an issue. Reporting issues assists in identifying any trends so that action can be taken at the earliest opportunity.

2.3 What are Other Reported Conditions

Research on Silicone Implants

A report published in 1998 by a US National Science Panel, appointed by Judge Sam Pointer, evaluated the scientific data on silicone breast implants in relation to connective tissue diseases and immunologic dysfunction. No association was found between silicone gel-filled implants and any of the definite connective tissue disorders (including Sjogren's Syndrome) or other autoimmune/rheumatic conditions. They found that women with silicone breast implants do not display a silicone-induced systemic abnormality in the types or functions of cells of the immune system.

In 1999, an independent review from a committee at the Institute of Medicine in the US reported that connective tissue disorders, cancer, neurological diseases or other systemic complaints or conditions are no more common in women with breast implants than in women without implants. They concluded that a review of the toxicology studies of silicones and other substances known to be in breast implants does not provide a basis for health concerns.

3.0 Surgical Considerations for Breast Reconstruction

This section provides a discussion of surgical considerations for primary breast reconstruction, followed by a discussion of general surgical considerations.

Your decision to have breast reconstruction is an important personal choice involving both risks and benefits. There are other options for breast reconstruction that do not involve breast implants. Be sure to ask your surgeon for a detailed explanation of each alternative to help you decide which reconstruction option is most suitable for you and your lifestyle. This brochure is intended to provide general information about silicone breast implants and surgery but is not a substitute for a thorough consultation with your surgeon. You are advised to carefully review and consider all the information you have received before deciding whether to have reconstruction surgery. Prepare a list of questions after reading this brochure and discuss them with your surgeon.

3.1 Should You Have Primary Breast Reconstruction

Whether you decide to have breast reconstruction depends on your own individual case, medical condition, general health, lifestyle, emotional state and breast size and shape. You should consult your surgeon to discuss your personal goals for breast reconstruction and you may also consider consulting your family, friends, breast implant support groups and breast cancer support groups to help you in making this decision.

If you are considering breast reconstruction and do not have a reconstructive surgeon, ask your general surgeon for a referral for the names of experienced, board-certified surgeons in your area. Your general surgeon, breast reconstruction surgeon and oncologist should work together to plan your mastectomy and reconstruction procedure and to advise you based on your specific clinical needs and desired outcome.

You should also be aware that, for primary reconstruction patients, alternatives may include:

- Having reconstruction using your own tissue (flap procedure).
- Having surgery with saline implants.

For revision-reconstruction patients, alternatives may include:

- No revision.
- Removal with or without replacement.

3.2 What are the Options in Primary Breast Reconstruction

You may choose not to undergo breast reconstruction. In this case, you may or may not decide to wear an external breast form (prosthesis) inside your bra. Breast forms are available in a variety of shapes, sizes and materials such as foam, cotton and silicone. Custom prostheses are also available to match the size and shape of your breast.

3.3 What are the Choices in Primary Reconstruction

The type of breast reconstruction procedure available to you depends on your medical situation, breast shape and size, general health, lifestyle and goals.

Breast reconstruction can be accomplished by the use of a prosthesis (a breast implant, either silicone gel or saline-filled), your own tissues (a tissue flap) or a combination of the two. A tissue flap is a combination of skin, fat and/or muscle that is moved from your stomach, back, or other area of your body to the chest area and shaped into a new breast. A tissue flap also may be used to provide skin or other tissue needed to make up for what was removed at the time of

surgery or changed following radiation therapy. Your surgeon can help you decide what method of breast reconstruction is most suitable for your particular situation.

Whether or not you have reconstruction with or without breast implants, you will probably undergo additional surgeries to improve symmetry and appearance. These additional surgeries may be part of a several stage reconstruction of the removed breast or to shape the remaining breast to bring it into better balance with the reconstructed one. Most commonly, breast implants are placed after a space has been created for them using a temporary soft tissue expander that can be placed at the time of mastectomy or at a later time.

Portions of the reconstruction may be done in stages. For example, because the nipple and areola are usually removed with the breast tissue in mastectomy, the nipple is usually reconstructed by using a skin graft from another area of the body or the opposite breast, in addition to tattooing the area to obtain a better color match. Nipple reconstruction is usually done as a separate outpatient procedure after the initial reconstruction surgery is complete.

3.4 Breast Reconstruction with Breast Implants

Women with small or medium-sized breasts are the best candidates for breast reconstruction. Reconstruction patients commonly undergo additional surgeries to improve breast symmetry and appearance. For example, because the nipple and areola are usually removed with the breast tissue in mastectomy, the nipple is usually reconstructed by using a skin graft from another area of the body or the opposite breast, in addition to tattooing the area. Nipple reconstruction is usually done as a separate outpatient procedure after the initial reconstruction surgery is complete.

Your surgeon will decide whether your health and medical condition makes you an appropriate candidate for breast implant reconstruction. Women with larger breasts may require reconstruction with a combination of a tissue flap and an implant. Your surgeon may recommend breast implantation of the opposite, uninvolved breast in order to make your breasts more alike (maximise symmetry) or he/she may suggest breast reduction (reduction mammoplasty) or a breast lift (mastopexy) to improve symmetry. Mastopexy involves removing a strip of skin from under the breast or around the nipple and using it to lift and tighten the skin over the breast. Reduction mammoplasty involves removal of breast tissue and skin. If it is important to you not to alter the unaffected breast, you should discuss this with your plastic surgeon as it may affect the breast reconstruction methods considered for your case.

3.5 Reconstruction Incision Sites

In reconstructive surgery, the incision placement and length is decided by your surgeon and largely influenced by the type of cancer surgery that is planned for you.

Most implants in breast reconstruction use the mastectomy scar either immediately (during the mastectomy procedure) or after tissue expansion.

3.6 Surgical Settings and Anaesthesia

Reconstruction surgery is usually performed on an inpatient basis in an operating room when it begins at the same time as the mastectomy. Some of the stages, such as nipple reconstruction, or placement of the implant after soft tissue expansion, can be done as an outpatient. General anaesthesia is most often used.

3.7 The Timing of Your Primary Breast Implant Reconstruction

The following description applies to reconstruction following mastectomy but similar considerations apply to reconstruction following breast trauma or reconstruction for congenital anomalies. The breast reconstruction process may begin at the time of your mastectomy (immediate reconstruction) or months to years afterwards (delayed reconstruction). This decision is made after consultation with the cancer treatment team based on your individual situation. Immediate reconstruction may involve placement of a breast implant but typically involves placement of a tissue expander which is used to gradually increase the space available to eventually fit an implant. The tissue expander will eventually be replaced with a breast implant. It is important to know that any type of surgical breast reconstruction may take several steps to complete.

A potential advantage to immediate reconstruction is that your breast reconstruction starts at the time of your mastectomy and that there may be cost savings and potentially fewer days in the hospital for you in combining the mastectomy procedure with the first stage of the reconstruction. However, there may be a higher risk of [capsular contracture](#), [extrusion](#) and other complications associated with immediate reconstruction as a result of post-operative radiation and chemotherapy treatments. Your initial operative time and recovery time may also be longer.

A potential advantage to delayed reconstruction is that you can delay your reconstruction decision and surgery until other treatments, such as radiation therapy and chemotherapy, are completed. Delayed reconstruction may be advisable if your surgeon anticipates healing problems with your mastectomy or if you just need more time to consider your options.

There are medical, financial and emotional considerations to choosing immediate versus delayed reconstruction. You should discuss with your general surgeon, reconstructive surgeon and oncologist the pros and cons of the options available in your individual case.

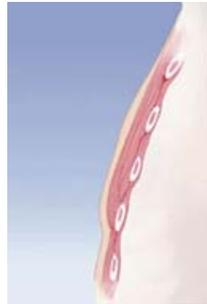
3.8 What is the Primary Breast Implant Reconstruction Procedure?

Immediate or Delayed Breast Implant Reconstruction

Breast reconstruction using only a breast implant may be done immediately at the time of your mastectomy or sometime thereafter. After the general surgeon removes your breast tissue, the plastic surgeon will then implant a breast implant that completes the reconstruction. In reconstruction following mastectomy, a breast implant is most often placed [submuscularly](#).

Expander-Assisted (Immediate or Delayed) Breast Implant Reconstruction

Breast reconstruction usually occurs as a multistage procedure, starting with the placement of a breast tissue expander, which is replaced several months later with a breast implant. The tissue expander placement may be done immediately, at the time of your mastectomy or be delayed until months or years later.



**Side View,
Breast
Tissue
Removed**



**Side View,
Expander
Inserted and Filled**

Tissue Expansion

During a mastectomy, the general surgeon removes skin as well as breast tissue, leaving the chest tissues flat and tight. To create a breast shaped space for the breast implant, a tissue expander is placed under the remaining chest tissues.

The tissue expander is a balloon-like device made from elastic silicone rubber. It is inserted unfilled and over time sterile saline fluid is added by inserting a small needle through the skin to the filling port of the device. As the tissue expander fills, the tissues over the expander begin to stretch, similar to the gradual expansion of a woman's abdomen during pregnancy. The tissue expander creates a new breast-shaped pocket for a breast implant.

Tissue expander placement usually occurs under general anaesthesia in an operating room. Operative time is generally 1 to 2 hours. The procedure may require a brief hospital stay or be done on an outpatient basis. Typically, you can resume normal daily activity after 2 to 3 weeks.

Because the chest skin is usually numb from the mastectomy surgery, it is possible that you may not experience pain from the placement of the tissue expander. However, you may experience feelings of pressure, tightness or discomfort after each filling of the expander which subsides as the tissue expands but may last for a week or more. Tissue expansion typically takes four to six months.

Placing the Breast Implant

After the tissue expander is removed, the breast implant is placed in the pocket. In reconstruction, following mastectomy, a breast implant is most often placed submuscularly. The surgery to replace the tissue expander with a breast implant (implant exchange) is usually done under general anaesthesia in an operating room. It may require a brief hospital stay or be done on an outpatient basis.



Post Mastectomy



**Stage 1: Tissue Expander
Placed and Expansion
Underway**



**Stage 2: Breast Implant and
Nipple/Areola
Reconstruction**

3.9 Primary Breast Reconstruction Without Implants: Tissue Flap Procedures

The breast can be reconstructed by surgically moving a section of skin, fat and muscle from one area of your body to another. The section of tissue may be taken from such areas as your abdomen, upper back, upper hip or buttocks.

The tissue flap may be left attached to the blood supply and moved to the breast area through a tunnel under the skin (a pedicled flap) or it may be removed completely and reattached to the breast area by microsurgical techniques (a free flap). Operating time is generally longer with free flaps because of the microsurgical requirements.

Flap surgery requires a hospital stay of several days and generally a longer recovery time than implant reconstruction. Flap surgery also creates scars at the site where the flap was taken and on the reconstructed breast. However, flap surgery has the advantage of being able to replace tissue in the chest area. This may be useful when the chest tissues have been damaged and are not suitable for tissue expansion. Another advantage of flap procedures over implantation is that alteration of the unaffected breast is generally not needed to improve symmetry.

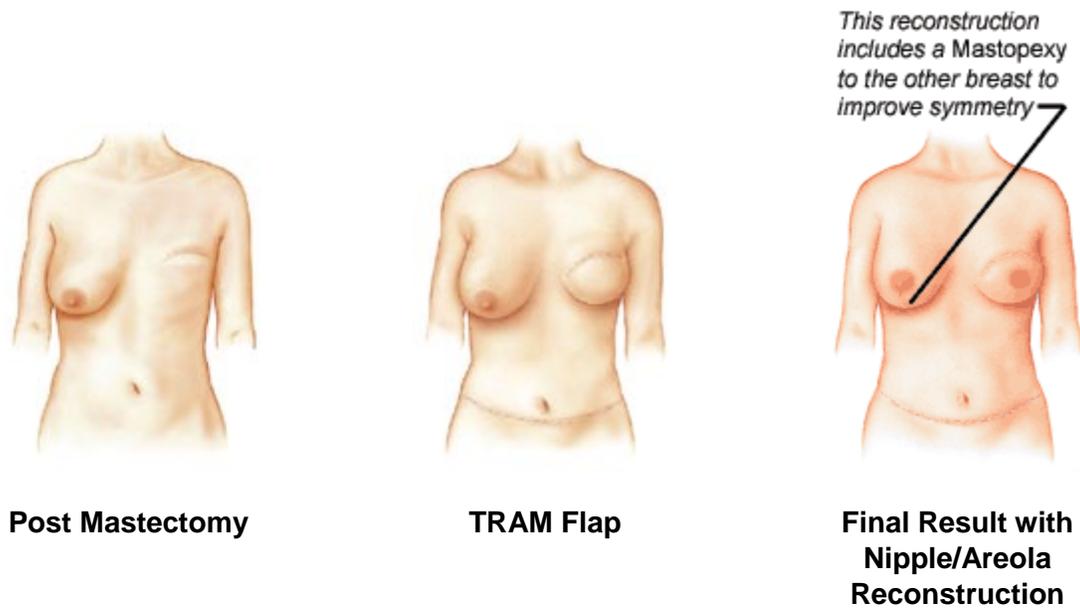
The most common types of tissue flaps are the TRAM (transverse rectus abdominus musculocutaneous flap) (which uses tissue from the abdomen) and the Latissimus dorsi flap (which uses tissue from the upper back).

It is important for you to be aware that flap surgery, particularly the TRAM flap, is a major operation, and more extensive than your mastectomy operation. It requires good general health and strong emotional motivation. If you are very overweight, smoke cigarettes, have had previous surgery at the flap site or have any circulatory problems you may not be a good candidate for a tissue flap procedure. Also, if you are very thin, you may not have enough tissue in your abdomen or back to create a breast mound with this method.

The TRAM Flap (Pedicled or Free)

During a TRAM flap procedure, the surgeon removes a section of tissue from your abdomen and moves it to your chest to reconstruct the breast. The TRAM flap is sometimes referred to as a “tummy tuck” reconstruction because it may leave the stomach area flatter.

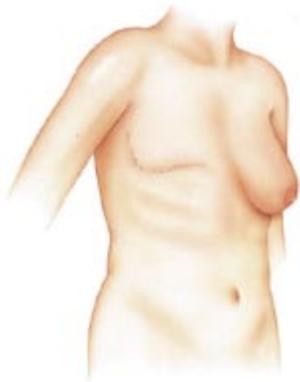
A pedicle TRAM flap procedure typically takes 3 to 6 hours of surgery under general anaesthesia; a free TRAM flap procedure generally takes longer. The TRAM procedure may require a blood transfusion. Typically, the hospital stay is 2 to 5 days. You can resume normal daily activity after 6 to 8 weeks. Some women, however, report that it takes up to 1 year to resume a normal lifestyle. You may have temporary or permanent muscle weakness in the abdominal area. If you are considering pregnancy after your reconstruction, you should discuss this with your surgeon. You will have a large scar on your abdomen and may also have additional scars on your reconstructed breast.



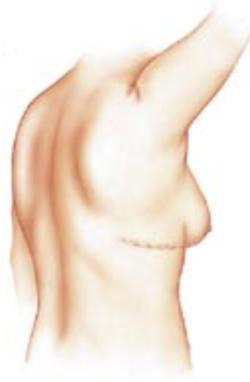
The Latissimus Dorsi Flap With or Without Breast Implants

During a Latissimus Dorsi flap procedure, the surgeon moves a section of tissue from your back to your chest to reconstruct the breast. Because the Latissimus Dorsi flap is usually thinner and smaller than the TRAM flap, this procedure may be more appropriate for reconstructing a smaller breast.

The Latissimus Dorsi flap procedure typically takes 2 to 4 hours of surgery under general anesthesia. Typically, the hospital stay is 2 to 3 days. You can resume daily activity after 2 to 3 weeks. You may have some temporary or permanent muscle weakness and difficulty with movement in your back and shoulder. You will have a scar on your back, which can usually be hidden in the bra line. You may also have additional scars on your reconstructed breast.



Post Mastectomy



View Showing Back Scar



**Latisimus Dorsi Flap and
Nipple/Areola
Reconstruction**

3.10 General Surgical Considerations

3.10.1 Choosing a Surgeon

When choosing a surgeon who is experienced with breast reconstruction, you should know the answers to the following types of questions:

- How many breast reconstruction implantation procedures does he/she perform per year?
- How many years has he/she performed breast reconstruction procedures?
- Has he/she completed Allergan's Physician Education Program (Allergan Academy™) for the use of *NATRELLE*® gel-filled breast implants?
- Is he/she board certified, and if so, with which board?
- In which country is he/she licensed to practice surgery? (Note that some countries provide information on disciplinary action and malpractice claims/settlements to prospective patients, either by request or on the Internet.)
- What is the most common complication he/she encounters with breast reconstruction?
- What is his/her **reoperation** rate with breast reconstruction and what is the most common type of reoperation he/she performs?
- Can he/she perform this surgery in a hospital, as well as in the surgeon's independent surgery centre? (Note that hospitals require evidence of appropriate training in specific procedures before allowing surgeons to operate in their facilities.)

3.10.2 What are Choices and Options Associated with the Surgery?

Implant Shape and Size

Depending on the desired shape you wish to achieve, you and your surgeon have implants with different profiles or styles from which to choose. Generally, the larger you want your cup size, the larger the breast implant the surgeon will consider (measured in grams or cubic centimetres [cc's], not in cup sizes, because cup size depends on the size and shape of the individual woman's chest).

Your surgeon will also evaluate your existing breast and skin tissue to determine if you have enough to cover the breast implant you are considering or in some cases, such as after pregnancy, too much extra skin. If you desire a breast implant size that is too large for your tissue, the surgeon may warn you that breast implant edges may be visible or [palpable post-operatively](#). Also, excessively large breast implants may speed up the effects of gravity on the breast and can result in droop or sag at an earlier age. A recent report indicates that larger-sized implants (greater than 350 g) may be too large for many women, increasing the risk of developing complications such as implant extrusion, [haematoma](#), infection, palpable implant folds and visible skin wrinkling requiring surgical intervention to correct these complications.

Surface Texturing

Surface texturing is designed to adhere to surrounding tissue. Some studies suggest that surface texturing reduces the chance of severe capsular contracture while other studies do not. Data from reconstruction and revision patients in Allergan's Core Study of TruForm® 1 did not show a difference in the likelihood of developing capsular contracture with textured implants compared to smooth implants.

A textured implant may require a larger incision because the rougher textured surface may make it harder to place into the pocket without undue stress which might damage the implant or decrease its durability. You should note that all *NATRELLE*® breast implants are available with a smooth shell surface.

Implant Palpability

Implants may be more palpable or noticeable if there is an insufficient amount of skin/tissue available to cover the implant and/or when the implant is placed [subglandularly](#).

Postoperative Care

You will probably feel somewhat tired and sore for several days following the operation and your breasts may remain swollen and sensitive to physical contact for a month or longer. You may also experience a feeling of tightness in the breast area as your skin adjusts to your new breast size. The feeling in the breasts and nipple area also may be diminished during this time of swelling and immediate post-surgery recovery. Other possible complications are described in the Breast Implant Complications section.

Post-operative care depends on each patient's situation may involve the use of a special post-operative bra, compression bandage or jog bra for extra support and positioning while you heal. Some surgeons may not want you to wear a bra at all for a period of time following the surgery. At your surgeon's recommendation, you will most likely be able to return to work within a few days, although for at least a couple of weeks you should avoid any strenuous activities that could raise your pulse and blood pressure or require strenuous use of your arms and chest. Your surgeon may also recommend breast massage exercises.

You should consult your surgeon for medical follow-up after your surgery.

It is very important that you consult with your healthcare professional before using any medicine in the breast area, before any clinical examination or surgery in the breast area and if you suspect any complications.

Note: If you experience fever, do not feel well, or see noticeable swelling and/or redness or drainage in your implanted breast(s), you should contact your surgeon immediately.

Other Factors to Consider in Revision-Reconstruction Surgery

Some revision surgeries require removal of an intact implant (for example, [capsulotomy](#) and pocket adjustments) while others do not require removal of the implant. Any device that has been removed during revision surgery should not be re-implanted. *NATRELLE*[®] breast implants are “for single use only.”

4.0 Follow Up Examinations

4.1 Breast Self-Examinations and Periodic Follow-up

Following breast reconstruction, you should continue to perform a breast self-examination monthly. This may be more difficult with a breast implant in place. To continue to perform a monthly breast self-examination efficiently, you should ask your surgeon to help you identify the difference between the implant and your breast tissue. Being able to identify the implant from breast tissue will decrease the necessity of excessive squeezing of the implant during examination. Any new lumps should be evaluated with a [biopsy](#), as appropriate. If a biopsy is performed, be sure to inform the medical professional performing the biopsy that you have breast implants so that care will be taken to avoid injuring the implant.

Breast implants require monitoring for the life of the implant. Thus, you should also schedule regular follow-up with your surgeon to evaluate complications.

4.2 Screening for Implant Rupture

Symptoms associated with rupture may include hard knots or lumps surrounding the implant or in the armpit, loss of size of the breast or implant, pain, tingling, swelling, numbness, burning or hardening of the breast. If you notice any of these changes, see your plastic surgeon so that he or she can examine the implants for rupture or other changes. Consult your doctor in the case of any trauma or compression to your breasts caused, for example, by some sports activity or by using a seat belt. You may need to have further testing to determine if your symptoms are due to rupture of the implant. If rupture has occurred, you should consider having your implant removed. Consult with your doctor regarding this and any other medical decisions related to your implants.

4.3 Mammography

Mammography exams should be interpreted by radiologists experienced in the evaluation of women with breast implants. It is essential that you tell your mammography technologist before the procedure that you have an implant. You should request a diagnostic mammogram rather than a screening mammogram, because more pictures are taken with diagnostic

mammography. The technologist can use special techniques to reduce the possibility of rupture and to get the best possible views of the breast tissue.

5.0 Additional Information

5.1 Device Identification Card

You will be given a device identification card with the style and serial number of your breast implant(s). This card is for your permanent record. It is recommended that you always carry your device identification card to facilitate medical care in case of an emergency. In the event you have a concern or problem with your implant you can use this card to describe the implant to your health care provider or to Allergan.

5.2 If you Experience a Problem

You should immediately report any problems that you notice with your implants to your plastic surgeon. If you believe that you have experienced a serious problem(s) related to your breast implants, you should have your health professional report the problem(s) to Allergan. In Australia, you should contact Allergan by email at MedDeviceComplaintsAPAC@Allergan.com or call 1800 252 224 and contact the Therapeutic Goods Administration at <https://www.tga.gov.au>

5.3 Confidence Plus Limited Warranties

ALLERGAN is pleased to offer the *ConfidencePlus*[™] and *ConfidencePlus*[™] Premier Warranty Programs as part of our long-term commitment to ensuring you remain confident in the integrity of your *NATRELLE*[®] gel-filled breast implants. For more information, please contact Allergan's Product Support Department at +44 (0) 1628 494456 and in Australia at 1800 252 224.

For Further Reading and Information

Overall Safety Assessment

Bondurant, S., Ernster, V., and Herdman, R., Eds. 2000. Safety of silicone breast implants. Committee on the Safety of Silicone Breast Implants, Division of Health Promotion and Disease Prevention, Institute of Medicine. Washington, D.C.: National Academy Press.

McLaughlin, J., et al. 2007. The Safety of Silicone Gel-Filled Breast Implants: A Review of the Epidemiologic Evidence. *Ann. Plast. Surg.* 59(5):569-80.

Benefits of Breast Implants

De la Pena-Salcedo, J.A., Soto-Miranda, M.A., and Lopez-Salguero, J.F. 2012. Prophylactic mastectomy: Is it worth it? *Aesth. Plast. Surg.* 36(1):140-148.

Diamond, B.A., Hulka, B.S., Kerkvliet, N.I., and Tugwell, P. 1998. Silicone Breast Implants in Relation to Connective Tissue Diseases and Immunologic Dysfunction. *Nation Science Panel, Nov 17.*

Fee-Fulkerson, K., Conaway, M.R., Winer, E.P., Fulkerson, C.C., Rimer, B.K., and Georgiade, G. 1996. Factors contributing to patient satisfaction with breast reconstruction using silicone gel implants. *Plast. Reconstr. Surg.* 97(7):1420-6.

Filiberti, A., Callegari, M., Rimoldi, A., Tamburini, M., Zanini, V., and Grisotti, A. 1994. A prospective study of psychosocial and psychodynamic patients' reactions to breast reconstruction. *Eur. J. Plast. Surg.* 17:307-11.

Franchelli, S., Leone, M.S., Berrino, P., Passarelli, B., Capelli, M., Baracco, G., Alberisio, A., Morasso, G., and Santi, P.L. 1995. Psychological Evaluation of Patients Undergoing Breast Reconstruction Using Two Different Methods: Autologous Tissues versus Prostheses. *Plast. Reconstr. Surg.* 95(7):1212-8.

Hart, D. 1996. The psychological outcome of breast reconstruction. *Plast. Surg. Nurs.* 16(3): 167-71.

Independent Review Group. 1998. Silicone Gel Breast Implants: The report of the Independent Review Group. Silicone gel breast implants Independent Review Group, 9th Flook, Hannibal House, Elephant and Castle, London SE1 6TQ. (<http://www.silicone-review.gov.uk>)

Neill, K.M., Armstrong, N., and Burnett, C.B. 1998. Choosing reconstruction after mastectomy: a qualitative analysis. *Oncol. Nurs. Forum.* 25(4): 743-50.

Implant Rupture

Hedén, P., et al. 2006. Prevalence of rupture in Inamed silicone breast implants. *Plast. Reconstr. Surg.* 118(2):303-8.

Hedén, P., et al. 2006. Style 410 cohesive silicone breast implants: safety and effectiveness at 5 to 9 years after implantation. *Plast. Reconstr. Surg.* 118(6):1281-1287.

Hölmich, L.R., et al. 2005. The diagnosis of silicone breast implant rupture. Clinical findings compared with findings at magnetic resonance imaging. *Ann. Plast. Surg.* 54(6):583-9.

Hölmich, L.R., et al. 2005. The diagnosis of breast implant rupture: MRI findings compared with findings at explantation. 2005. *Eur. J. Radiol.* 53(2):213-25.

Hölmich, L.R., et al. 2004. Untreated silicone breast implant rupture. *Plast. Reconstr. Surg.* 114(1):204-14.

Holmich, L.R., et al. 2001. Prevalence of silicone breast implant rupture among Danish women. *Plast. Reconstr. Surg.* 108(4):848-858.

Capsular Contracture

Baker, J.L. Augmentation mammoplasty. In: Owsley, J.Q. and Peterson, R., Eds. *Symposium on aesthetic surgery of the breast*. St. Louis, MO: Mosby, 1978:256-263.

Henriksen, T.F., et al. 2005. Surgical intervention and capsular contracture after breast augmentation: a prospective study of risk factors. *Ann. Plast. Surg.* 54(4):343-51.

Kulmala, I., et al. 2004. Local complications after cosmetic breast implant surgery in Finland. *Ann. Plast. Surg.* 53(5):413-9.

Seify, H., et al. 2005. Preliminary (3 years) experience with smooth wall silicone gel implants for primary breast augmentation. *Ann. Plast. Surg.* 54(3):231-5.

ALCL

Alobeid, B., et al. 2009. Aggressive presentation of breast implant-associated ALK-1 negative anaplastic large cell lymphoma with bilateral axillary lymph node involvement. *Leuk. Lymphoma* 50(5):831-833.

Bishara, M.R., et al. 2009. Case report: Primary anaplastic large cell lymphoma of the breast arising in reconstruction mammoplasty capsule of saline filled breast implant after radical mastectomy for breast cancer: An unusual presentation. *Diagn. Pathol.* 4:11-16.

Daneshbod, Y., et al. 2010. Primary ALK-positive anaplastic large cell lymphoma of the breast: A case report and review of the literature. *J. Pediatr. Hematol. Oncol.* 32:e75-e78.

de Jong, D., et al. 2008. Anaplastic large-cell lymphoma in women with breast implants. *JAMA* 300(17):2030-2035.

Fritzsche, F.R., et al. 2006. Anaplastic large-cell non-Hodgkins lymphoma of the breast in periprosthetic localization 32 years after treatment for primary breast cancer – A case report. *Virchows Arch* 449:561-564.

Gaudet, G., et al. 2002. Breast lymphoma associated with breast implants: case-reports and a review of the literature. *Leukemia Lymphoma* 43:115-119.

Gualco, G., and C.E. Bacchi. 2008. B-cell and T-cell lymphomas of the breast: Clinical-pathological features of 53 cases. *Int.J. Surg. Pathol.* 16(4):407-413.

Gualco, G., L. et al. 2009. Primary and secondary T-cell lymphomas of the breast: clinic-pathologic features of 11 cases. *Appl. Immunohistochem. Mol. Morphol.* 17(4):301-306.

Guo, H.Y., et al. 2008. Primary non-Hodgkin's lymphoma of the breast: Eight-year follow-up experience. *Hematol.* 87(5):491-497.

- Jacobsen, E. 2006. Anaplastic large-cell lymphoma, T-/null-cell type. *Oncologist*. 11(7):831-40.
- Keech, J.A., Jr. and B.J. Creech. 1997. Anaplastic T-cell lymphoma in proximity to a saline-filled breast implant. *Plast. Reconstr.* 100(2):554:555.
- Li, S. and A.K. Lee. 2010. Case report: Silicone implant and primary breast ALK1-negative anaplastic large cell lymphoma, fact or fiction? *Int. J. Clin. Exp. Pathol.* 3(1):117-127.
- Miranda, R.N., et al. 2009. Anaplastic large cell lymphoma involving the breast: clinical/pathologic study of 6 cases and review of the literature. *Arch. Pathol. Lab. Med.* 133(9):1383-1390.
- Newman, M.K., et al. 2008. Primary breast lymphoma in a patient with silicone breast implants: A case report and review of the literature. *J. Plast. Reconstr. Aesthet. Surg.* 61(7):822-825.
- Olack, B., et al. 2007. Anaplastic large cell lymphoma arising in a saline breast implant capsule after tissue expander breast reconstruction. *Ann. Plast. Surg.* 59(1):56-57.
- Roden, A.C., et al. 2008. Seroma-associated primary anaplastic large-cell lymphoma adjacent to breast implants: An indolent T-cell lymphoproliferative disorder. *Mod. Pathol.* 21(4):455-463.
- Sahoo, S., et al. 2003. Anaplastic large cell lymphoma arising in a silicone breast implant capsule: A case report and review of the literature. *Arch. Pathol. Lab. Med.* 127(3):e115-e118.
- Wong, A.K., et al. 2008. Anaplastic large cell lymphoma associated with a breast implant capsule: a case report and review of the literature. *Am. J. Surg. Pathol.* 32(8):1265-1268.

Effects on Breastfeeding/Children

- Hemminki, E., et al. 2004. Births and perinatal health of infants among women who have had silicone breast implantation in Finland, 1967-2000. *Acta Obstet. Gynecol. Scand.* 83(12):1135-40.
- Kjøller, K., et al. 2002. Health outcomes in offspring of Danish mothers with cosmetic breast implants. *Ann. Plast. Surg.* 48(3):238-45.
- Signorello, L.B., et al. 2001. Offspring health risk after cosmetic breast implantation in Sweden. *Ann. Plast. Surg.* 46(3):279-86.

Silicone Gel Migration

- Katzin, W.E., et al. 2005. Pathology of lymph nodes from patients with breast implants: a histologic and spectroscopic evaluation. *Am. J. Surg. Pathol.* 29(4):506-11.
- Blackburn, W.D., Jr. and Everson, M.P. 1997. Silicone-associated rheumatic disease: an unsupported myth. *Plast Reconstr Surg.* 99:1362-1367. Brown, S.L., Duggirala, H.J., and Pennello, G. 2002. An association of silicone-gel breast implant rupture and fibromyalgia. *Curr Rheumatol Rep.* 4:293-298.
- Williams, H.J., et al. 1997. Breast implants in patients with differentiated and undifferentiated connective tissue disease. *Arthritis Rheum.* 40(3):437-40.

Wolfe, F. and Anderson, J. 1999. Silicone filled breast implants and the risk of fibromyalgia and rheumatoid arthritis. *J. Rheumatol.* 26(9):2025-8.

Gel Diffusion

Chandra, G., et al. 1987. A convenient and novel route to bis(alkyne)platinum(0) and other platinum(0) complexes from Speier's hydrosilylation catalyst. *Organometallics.* 6:191-2.

Flassbeck, D.B., et al. 2003. Determination of siloxanes, silicon, and platinum in tissues of women with silicone gel-filled implants. *Anal. Bioanal. Chem.* 375(3):356-62 (for example, data from Patients B & C).

Lappert, M.F. and Scott, F.P.A. 1995. The reaction pathway from Speier's to Karstedt's hydrosilylation catalyst. *J. Organomet. Chem.* 492(2):C11-C13.

Lewis, L.N., et al. 1995. Mechanism of formation of platinum(0) complexes containing silicon-vinyl ligands. *Organometallics.* 14:2202-13.

Lugowski, S.J., et al. 2000. Analysis of silicon in human tissues with special reference to silicone breast implants. *J. Trace Elem. Med. Biol.* 14(1):31-42.

Stein, J., et al. 1999. In situ determination of the active catalyst in hydrosilylation reactions using highly reactive Pt(0) catalyst precursors. *J. Am. Chem. Soc.* 121(15):3693-703.



Allergan
Marlow International, Parkway, Marlow,
Bucks SL7 1YL, United Kingdom
T. +44 (0) 1628 494456
F. +44 (0) 1628 494956
E. Productsupport_eame@allergan.com
www.allergan.com



Allergan Pharmaceuticals International Limited,
Clonshaugh Business & Technology Park,
Dublin 17, D17 E400, Republic of Ireland

©2020 Allergan All rights reserved. All trademarks are the property of their respective owners.

www.allergan.com

LDOC-04917 Rev. 01

02/2020