

Surgery for Breast Reconstruction 乳房重建手術

Introduction

- Breast reconstruction surgery aims to restore the shape and form of breast after surgical resection or mastectomy. The procedure can be performed immediately after mastectomy (primary reconstruction) or after some years later (secondary reconstruction).
- Depending on individual need, nipple areola reconstruction and tattooing can be performed half year after breast reconstruction as a staged procedure.
- Breast reconstruction can be classified as
 - Implant insertion with or without tissue expansion
 - Autologous tissue transfer (flap or fat grafting)
 - Or a combination of both

Before the Procedure/Preoperative Care

- Before the procedure you will be assessed by the Plastic surgeons and Breast surgeons on the need, the suitability and method of breast reconstruction. Most patients are suitable for breast reconstruction but this is an optional procedure for your cancer treatment. You should discuss with your surgeons for the necessity and understand the long term advantages and disadvantages of such procedures. Use of external prosthesis is an alternative. The surgeon will help you to make the preferred decision of your choice.
- In the pre-operative assessment it is important to tell your doctor about every medication that you are taking including herbal and traditional medicine. It may be necessary to stop medication that increases the risk of bleeding during a surgical procedure.
- Smoking should be completely restricted as this will increase the risk of skin and flap failure.
- Investigations including blood tests, electrocardiogram, chest X-ray will be performed.
- A signed consent is required.

The procedure

- Generally the procedure will be performed under general anaesthesia in an operating theatre.
- Usually the procedure will be operated by 2 teams of surgeon for mastectomy and immediate reconstruction to shorten the operative time
- The procedure will last for 4 to 10 hours depending on the types of reconstruction and recovery after the anaesthesia.

- The procedure can be divided as follows:

Implant insertion

Either saline or gel implant will be used. It will be placed under the skin or the chest wall muscle. The procedure is simpler and shorter. The shape of the breast depends on the types of implants used. The implant may be displaced, ruptured, or hardened, necessitating further operation to replace or remove the implant. The use of postoperative radiotherapy may increase the complication rates related to the implants.

Use of autologous (self) tissue

Common tissues include the abdominal wall (TRAM) or back muscle (LD) and skin. The shape can be tailored and the tissue will stand radiotherapy better. Longer time of procedure and more scarring are disadvantages of the procedures. Partial or total loss of the transferred tissue is potential complication but once the wound heals, the transferred tissue will become part of your body.

The transfer of tissue can be performed using the attached blood supply (pedicle flap) or using microscope to restore the blood circulation (free flap).

Autologous fat grafting is an alternative of self-tissue transfer. Fat is harvested from the abdomen or thighs. After processing, fat can be injected into the breast area to enlarge the breast. This can be used to enlarge small breast or fill up contour defect after breast reconstruction. Multiple sessions will usually be required.

Use of both implant and autogenous tissue may be required in certain circumstances, depending on the size of the contralateral breast and your choice of procedures.

- To make the best choice, you should discuss with your surgeons for advice.

After the Procedure / Postoperative Care

- You may have a dressing over the wound. If autogenous tissue flap is used, you should avoid direct pressure over the flap skin or its blood supply. The nurse will monitor the flap circulation regularly.
- If the abdominal wall tissue is used you may be required to sit up in bed for 2-3 days to avoid stretching on the abdominal wound. Pillows will be put under your thighs to give you more comfort. You are encouraged to move your legs to avoid stasis of blood circulation.
- A urine catheter or intravenous drip will be required in the early postoperative period. These will be removed when you can resume oral feeding and become more ambulatory for toileting. Surgical drains will be in place to remove exudates. These will be removed in post-operative period depending on their output.
- Postoperative pain may be experienced in the breast and donor site. If necessary you will be given an intravenous line of pain medication. You can press the control button to adjust the medication required.

- Please listen to any specific postoperative instructions given to you on wound care. The wound will be kept intact, dressed by nurses or topical antibiotic ointments applied regularly.
- Inform the nurse if there is oozing or severe pain from the wound.
- In the early days after abdominal wall surgery, you may lean forward when you stand to avoid stretching on the wound. Once pain can be tolerated, you can gradually straighten up, usually in 1 – 2 weeks' time. The abdominal skin may feel numb in the early weeks after operation but the sensation will recover with time.
- Depending on the advice from your surgeons, you may not be required to remove stitches if absorbable sutures were used. When non-absorbable sutures were used, they will be removed in 1 – 2 weeks' time depending on the progress of wound healing.
- Follow the instructions by nurses or physiotherapists for wound care, massage and limb mobilization.
- Recovery depends on the type of procedures performed. Usually you can apply full-cup bra with no wiring in 2 weeks' time. You can resume daily activities 3- 4 weeks after the operation.

Risks

- Some scarring is inevitable though your surgeon will do their best to minimize it.
- Bleeding and infection may occur but not commonly.
- Partial and total loss of flap is uncommon and the nurse and surgeon will monitor the healing process. Small defect will heal with dressing and more extensive involvement will require further corrective surgery.
- For fat grafting, bruises and pain over fat harvesting site may occur and last for few days. Some of the grafted fat may be resorbed, requiring multiple staged procedures to attain the expected outcome.
- Patients with breast implants have a low associated risk of developing Breast Implant Associated-Anaplastic Large Cell Lymphoma (BIA-ALCL). This is a rare lymphoma (cancer of the immune system) usually involves swelling around the textured implant. Surgical removal of the implant and surrounding capsule is required to treat the condition. You may discuss with the surgeon for the risk and management. (Remark: Please refer to FAQ of BIA-ALCL)

Care After Discharge / Follow Up

- You can usually be discharged home within a week after operation.
- If you notice non-stop bleeding, severe pain or swelling, infection and discharges, please contact the hospital or go to the Accident and Emergency Department nearby.
- You need regular follow up in outpatient clinic to look for late effects of scarring, herniation of abdominal wall and problems related to the implant

- During your follow-up visit, your surgeon will check your wounds and discuss the results of surgery including any need for further treatment or subsequent nipple reconstruction and tattoo.

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information please contact your doctor.



**Frequently-Asked Questions (FAQ) on
Risk of Breast Implant Associated-Anaplastic Large Cell Lymphoma (BIA-ALCL)**

Patients with breast implants have a low but increased risk of developing BIA-ALCL. You may refer to the FAQ below for more understanding of the risks and management of this rare type of lymphoma.

1) What is BIA-ALCL?

Breast Implant Associated-Anaplastic Large Cell Lymphoma or BIA-ALCL is a rare type of lymphoma that usually develops around breast implants. It is a cancer of the immune system and is not a type of breast cancer. It usually involves swelling around the implant, which typically occurs 3 - 14 years after implant surgery (95% of cases).

2) Aside from BIA-ALCL, what are the other common side effects associated with breast implants?

Some of the known adverse effects or complications associated with breast implants include implant rupture (a tear or hole in the implant's outer shell), reoperation / implant removal and capsular contracture (tightening of the tissue capsule around an implant, resulting in hardening of the breast).

3) How frequent is BIA-ALCL?

Breast implants have a silicone outer surface that is either smooth or textured. Globally, the majority of persons with breast implants who develop BIA-ALCL have textured implants. The estimated incidence rates of BIA-ALCL reported in literature range from 1 in 3,817 to 1 in 30,000 persons with textured breast implants. Further review of global reports on BIA-ALCL indicates a relatively higher incidence rate among those implanted with macro-textured breast implants.

4) Why is there a higher incidence of BIA-ALCL in textured implants as compared to smooth-surface implants?

Currently, the causes and the associated risk factors for BIA-ALCL are still unclear and are being investigated globally. The extent to which the surface of the breast implants being a risk factor in developing BIA-ALCL is also under investigation. While the majority of patients who develop BIA-ALCL globally have textured implants, there are a few unconfirmed reports of BIA-ALCL in patients who have received smooth-surface implants. The possible association is under investigation.

5) Should I remove my breast implants?

If you have no symptoms, removal of breast implants is not recommended due to the low risk of developing BIA-ALCL. To date, no cases of BIA-ALCL have been reported in public hospitals. Indeed, the placement and removal of breast implants are not trivial acts. Both operations involve general anesthesia. The most common post-operative risks are hematomas, inflammations, infections, serous effusions as well as difficulties in healing. These interventions also involve the risks inherent in any anesthesia. If you have any questions, consult your doctor.

6) I have breast implants. How do I know if I have BIA-ALCL?

You are advised to conduct regular breast self-examination. If you notice enlargement, swelling or a lump, or experience pain around your implant or armpit, you should consult your doctor through respective specialist outpatient clinic as soon as possible. You should also continue to attend specialist outpatient follow-up scheduled by your doctor, as it plays an important role in early detection of BIA-ALCL.

7) If I experience any symptoms that may suggest BIA-ALCL (e.g. enlargement, swelling or a lump, or experience pain around the implant or armpit), what should I do?

You should immediately consult your doctor regarding the need for further evaluation. Evaluation for BIA-ALCL typically involves physical examination, imaging and / or assessment of the fluid or tissue around the breast implant. It is important to undergo evaluation to diagnose BIA-ALCL since a confirmed BIA-ALCL diagnosis may change the type of operation that should be performed.

8) What is the treatment for confirmed BIA-ALCL?

Based on the discussion with your doctor, patients with confirmed BIA-ALCL should undergo removal of the implant and the surrounding scar capsule, which is a more extensive operation than implant removal alone. In some cases, follow-up in other clinical specialties may be required.