



**Procedure Information –
Transverse Rectus Abdominis
Myocutaneous Flap Reconstruction
(TRAM Flap)**

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Name: Sex/Age:
Doc. No.: Adm. Date:
Attn. Dr.:
Patient No.: PN

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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).
- Breast reconstruction is the rebuilding of a breast after mastectomy. Surgeon uses autologous tissue from the abdominal wall (Transverse Rectus Abdominis Myocutaneous Flap –TRAM Flap) to reconstruct a natural-looking breast.
- Depending on individual need, nipple areola reconstruction and tattooing can be performed half year after breast reconstruction as a staged procedure.

The Procedure

- The operation is performed under general anaesthesia.
- Surgeon uses patient autologous tissue in abdominal wall for constructing a natural-looking breast except nipple and areola.
- The nipple and areola may be kept if the underlying breast tissue is not involved by the tumor. It can be constructed in second stage when adjuvant therapy is completed.
- The procedure can be divided as follows:
 - 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.

Risk and Complication

- There are always certain side effects and risks of complications of the procedure. Medical staff will take every preventive measure to reduce their likelihood.
- Surgical instruments or implant may be broken off and retained at the surgical site during operation.

A. *Complications related to anaesthesia*

- Cardiovascular complications: myocardial infarction or ischaemia, stroke, deep vein thrombosis, pulmonary embolism, etc.
- Allergic reaction and shock.
- Respiratory complications: atelectasis, pneumonia, asthmatic attack, exacerbation of chronic obstructive airway disease.



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B. Common procedural related complications (not all possible complications are listed)

1. Some scarring is inevitable though your surgeon will do their best to minimize it.
2. Bleeding and infection may occur but not commonly.
3. 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.
4. 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.
5. Numbness and tingling sensation over the operated wound.
6. Blood vessels and nerve injury.
7. Weakness of abdominal wall muscle.
8. Hernia.
9. Haematoma (for clot evacuation) or Seroma (for aspiration).

Before the Procedure

1. Procedures are performed as elective operation.
2. You will need to sign a consent form and your doctor will explain to you the reason, procedure and possible complications.
3. 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.
4. Smoking should be completely restricted as this will increase the risk of skin and flap failure.
5. Admit one day before operation for routine investigations such as blood taking, CXR, ECG, Urine analysis etc.
6. Inform your doctor about drug allergy, your regular medications or other medical conditions.
7. Bath or shower and shampoo one day before operation.
8. Keep fast for 6 to 8 hours before operation.
9. Change to operation room uniform before transfer to operating room.



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After the Procedure

A. Usually after operation

1. You need bed rest in semi-supine position for 4-5 days with the knee are raised bent upward and support by pillows and patient do not extend the body and sit with hips and knees slightly bent during ambulation in the first week to prevent abdominal wound dehiscence.
2. Vital sign monitoring and wound observation and particular attention should be paid with avoid pressure to the new flap. Nurses will observe the flap color, capillary refill and temperature every hour.
3. Avoid blood pressure monitoring, blood taking, intravenous infusion or injection in operative upper limb.
4. 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.
5. Inform nurse when feeling of nausea, vomiting or wound pain; antiemetic and pain killer can be taken as necessary if prescribe by your doctor.
6. 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.
7. Urine catheter and multiple drains will be inserted and it will be removed according to doctor prescription.
8. Resume normal diet and remove the intravenous infusion according to doctor prescription.
9. Encourage for deep breathing exercise and lower limbs movement after general anaesthesia.
10. Refer to Physiotherapist for daily activity training.

Wound care

1. Breast wound cover with small pieces of special adhesive tape (Steri-Strips) and transparent dressing for observing the flap circulation which needs to be kept dry and clean. It would be changed after wound inspection from your doctor.
2. Abdominal wound cover with Steri-Strips and dressing would change after wound inspection from your doctor.
3. Drains will be inserted into the operated breast wound and other drains insert into the abdominal wound. All drains will be removed according to doctor's instruction.
4. 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.

Diet

Resume diet when recover from anaesthesia.



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B. Things to take note on discharge

- Contact your doctor or the Accident & Emergency Department if the following events occur:
 - Increasing pain or redness around the wound
 - Discharge from the wound
- Activity: Daily activity can be started gradually as tolerate. Avoid heavy lifting and excess exercise in the affective limb.
- Sex-life: You may resume your sex life after the wound has healed. Share your feelings and anxiety to your partner can help for recovery. Remember the sexual intercourse will not transmit cancer to your partner.
- 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.
- Remember the dates of taking off stitches/clips in the clinic, and follow-up in the specialist clinic.
- 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.

Reference

Hospital Authority – Smart Patient Website

I acknowledge that the above information concerning my operation/procedure has been explained to me by Dr. _____. I have also been given the opportunity to ask questions and receive adequate explanations concerning my condition and the doctor's treatment plan.

Patient / Relative Name

Signature

Relationship (if any)

Date