

# Post-operative recovery following DIEP or MS-TRAM Flap Breast Reconstruction Surgery

DIEP - Deep Inferior Epigastric Perforator

TRAM - Transverse Rectus Abdominus Myocutaneous

---

## How long will it take me to recover after the operation?

How people recover following an operation is very individual and will vary on your general health at the time of the operation but we expect you to be back to normal activities 12 weeks (3 months) after the operation. It can take 12 months however to be fully recovered.

It is important that you adhere to the specific physiotherapy exercises to aid you in your initial recovery.

## Post-operative support underwear

You will require a supportive sports bra to wear after surgery, which we ask that you bring in to hospital with you. This can be front or back fastening with adjustable straps and a deep band. We would recommend a front-fastening bra immediately post-op to allow the nurses to monitor your flap with minimal disturbance to you. It should be non-wired and avoid 'racer back' style sports bras that you need to be put on over the head. You will be recommended to wear your bra for 6 weeks day and night so it is worth purchasing two bras. They will give you comfort and support and help mould the breast reconstruction into a good shape.

A bra extender is also advised which will make the bra more comfortable if you have bruising and swelling post-operatively. We ask you to purchase and bring into hospital a pair of high waisted support pants which will need to cover the whole abdominal area. You will need to start wearing these on discharge and for 6 weeks post-operatively, day and night. Use your hip measurements to buy the right size. The breast reconstruction specialist nurse will give you advice on where to purchase support pants and bras locally.

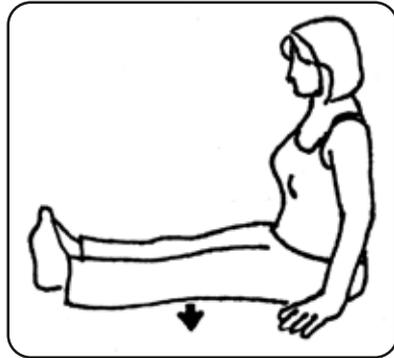
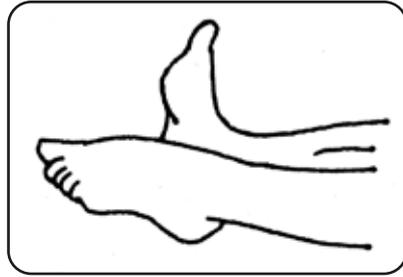
## Post-operative physiotherapy following DIEP or MS-TRAM flap breast reconstruction

### Breathing exercises - every hour

Take a deep breath in through your nose concentrating on expanding the base of your lungs. Hold for 3 seconds and then relax the breath out. Repeat 3 times. After the deep breaths a short-forced breath out (huff) or cough may be sufficient to clear any phlegm from your lungs. To protect your abdominal wound when coughing, bend your knees slightly and support your stomach with your hands, or gently press a rolled-up towel or a pillow against your wound.

## Circulatory exercises (repeat each ten times) - every hour

1. Briskly move your feet up and down.



2. Tighten your thigh muscles by straightening your legs and pushing the back of your knees down into the bed. Hold for 3 seconds, and then relax.

3. Squeeze your buttocks together, hold for 3 seconds, and then relax.

## Advice about getting up

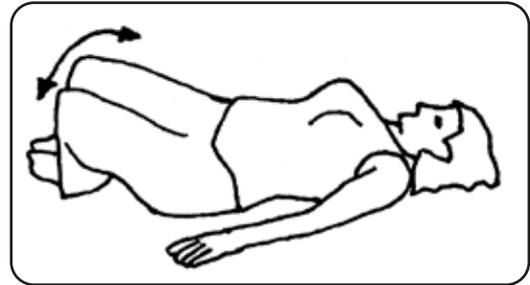
When you first get up and about it is important that you are wearing your abdominal support and that you don't try to move too quickly. You will require help the first few times from your nurse or physiotherapist. From lying on your back, bend your knees up and roll onto your side. Bring your legs over the side of the bed whilst pushing your body up with your arm (non-operated arm if possible). When you first stand up, it is important not to pull on your abdominal wound so you should stand in a stooped position. You can gradually straighten up over the next few days as comfort allows, and from five days after your operation you should aim to stand upright.

## Pelvic tilting exercises

After two or three days, you can start these exercises to ease/prevent back pain and stiffness. In a seated or lying position, tighten your tummy muscles to flatten your back and tuck in the base of your spine. Then move the opposite way, arching your back forwards, as if someone was pushing their fist into the small of your back.

## Knee rolling

Within the first few days after your surgery you can start this exercise. Lie on your back with your knees bent up, keeping feet flat on the bed and your legs together. Then gently roll your knees from side to side, but don't try to twist around too far.



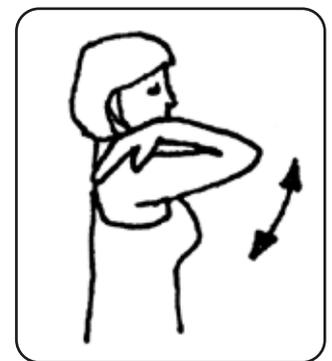
## Shoulder exercises

These exercises are to help you safely regain the range of movement you had prior to your operation. Only do the exercises within your comfort.

### Level one

From day one: to be performed in a seated position three times a day. **Do not take your arm above shoulder height.** Do each five times.

1. Place your hand on your shoulder – lift your elbow forwards and down.

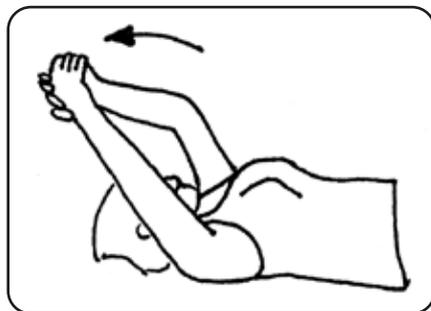
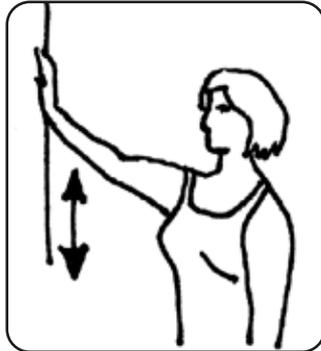


2. Place your hand behind your neck with your elbow pointing forward. Take your elbow out to the side and back.

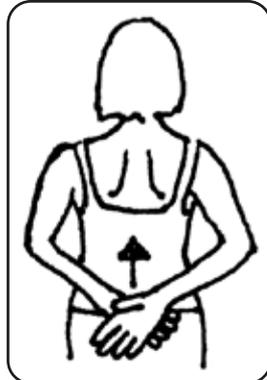
## Level two

After two weeks shoulder movement can be progressed within a pain free range. Repeat each exercise five times, three times a day until you regain full shoulder movement. This may take up to 6 weeks.

1. Stand facing a wall – slide your hand up the wall as high as comfortable & slide slowly back down.



2. Lying on your back with your elbow straight – use one arm to lift the other arm above your head and control back down.



3. Clasp your hands behind your back and slide them as far up as is comfortable and control back down.

## General advice

The timescales given are only guidelines; in some cases, healing may take longer.

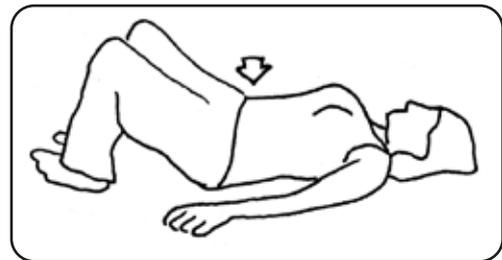
### After 2 weeks

- Gradually increase the level of activity of your arm within comfortable ranges.
- Use your arm for light activities only. Avoid all heavy lifting.

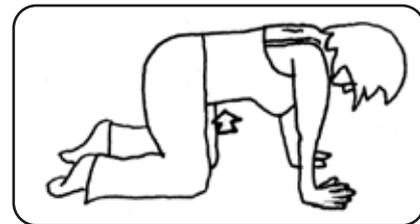
- The number of pillows kept under your knees at night can be gradually reduced, progressing to lying flat.
- **Posture:** try to maintain an upright posture to minimise the risk of stiffness after your wounds have healed.

### After 4 weeks

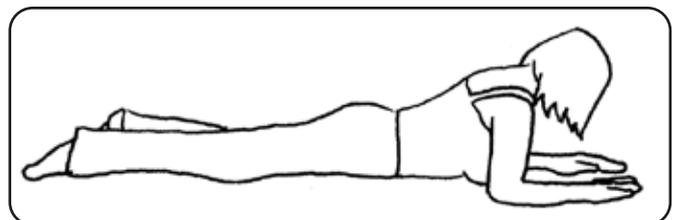
Continue to develop deep tummy and pelvic floor muscle strength; lying in a crooked position,



gently hollow your abdomen, keeping your pelvis still. Alternatively, in a position of kneeling on all fours, gently pull your tummy muscles up and



in towards your spine, keeping your back still. Hold for 3 seconds then relax letting your tummy hang loose. This can be progressed into different positions, for example in sitting, standing and walking. Once your abdominal wound has healed, gentle stretching of your tummy can start to maintain a good posture and scar management. In a lying position a pillow can be placed under your back, to create a stretch. This can be progressed to lying on your tummy whilst propping yourself up onto your elbows.



## After 6 weeks

Sit ups/curl ups may be started once you are able to maintain good abdominal hollowing. These types of exercises can be progressed as able. Pilates-type exercises can be very beneficial (ask your therapist for advice).

If you are having any radiotherapy treatment post-operatively it may cause tightness around your shoulder, therefore it is important to continue your shoulder exercises within your comfort.

## When will I be back to 'Normal'?

### Bathing/showering

It is best not to bath/shower at first as we advise that you do not get the dressings wet for the first couple of weeks and we are sure the suture lines are healing. Once you have had your initial post-operative check up at the hospital and they are happy that your wounds have healed you may bath/shower as normal.

### Constipation

Being constipated can put a strain on your healing abdomen and sutures. You are therefore advised to eat a well-balanced, high fibre diet to enable you to have your bowels open regularly. Contact your GP as soon as possible if you feel that this is not happening.

### General activities

For the first 2 weeks you should lift nothing heavier than a kettle half filled with water, and then gradually increase your daily activities, using how you feel as a guide. Avoid any heavy lifting or vigorous, repetitive housework with push/pull action, e.g. vacuuming, for 6-8 weeks. Within 4-6 weeks wounds should be healed and you should have regained full range of movement in the arm nearest your reconstructed breast, though you may be rather stiff.

### Sport

We advise you not to start any strenuous activity such as aerobics, squash, running, swimming and horse-riding for at least 12 weeks after

your operation. You should then wear a good sports bra for such activities. Pilates and yoga are good activities to do post operatively to help strengthen your core muscles and pelvic floor.

### Driving

You should avoid driving for 6 weeks after your operation. Turning movements and reversing are often the most difficult actions. You need to be comfortable wearing a seatbelt and able to perform an emergency stop and swerve. If in any doubt seek medical advice or check with your insurance company that your policy is valid.

### Sunbathing

We advise you to use a high factor sunscreen or sun block on your scars until they have fully matured; this may take up to 2 years.

## What problems can occur after the operation?

### Risks of a general anaesthetic

General anaesthetics have some risks, which may be increased if you have chronic medical conditions, but in general they are as follows:

**Common temporary side-effects** (Risk of 1 in 10 to 1 in 100) include:

- Bruising or pain in the area of injections
- Blurred vision
- Sickness (this can usually be treated and pass off quickly)

**Infrequent complications** (Risk of 1 in 100 to 1 in 10,000) include:

- Temporary breathing difficulties
- Muscle pains
- Headaches
- Damage to teeth, lip or tongue
- Sore throat
- Temporary difficulty speaking

## **Extremely rare and serious complications**

(Risk of less than 1 in 10,000) include:

- Severe allergic reactions and death
- Brain damage
- Kidney and liver failure
- Lung damage
- Permanent nerve or blood vessel damage
- Eye injury
- Damage to the voice-box
- These are very rare and may depend on your whether you have other serious medical conditions.

## **Skin**

There is a slight risk that the blood supply to skin around your breast reconstruction or abdomen may be damaged by surgery and some skin may die. This is called necrosis. If there is a small area of wound breakdown, this may require regular dressings for a few weeks until it heals. You may be left with visible excess skin on the ends of your abdominal wounds. These are known as 'dog ears'. If these are bothersome, they can be corrected in time with a minor, day case operation.

## **Numbness**

Patients may experience reduced sensation or numbness in the abdominal area, upper chest wall and, in some cases, the upper thighs. This will usually subside in the months following your operation but sometimes can be permanent.

## **Seroma**

You may develop a collection of healing fluid with in your abdomen called Seroma. This is not harmful but can sometimes swell up, become uncomfortable and may put pressure on your abdominal wound. Please contact your breast reconstruction nurse specialist if you are worried that you may have a seroma as it may need to be drained using a needle and syringe by your surgeon at the hospital.

## **Blood clots**

Deep Vein Thrombosis (DVT) is a possible problem, but is uncommon. It causes swelling of the leg and can result in a blood clot passing to the lungs (pulmonary embolus). This will occur in 1% of patients that undergo DIEP. Precautions will be taken to reduce these risks. All patients will be asked to wear surgical stocking for the duration of their stay in hospital along wear foot pumps or calf pumps to aid blood circulation in your legs until you become mobile. You will also be encouraged to get up and move around as early as possible following your operation. You will also be given a daily blood thinning injection to help reduce the risk of blood clots. A large pulmonary embolus has the potential to produce fatal side effects.

## **Chest Infection**

Due to the length of the operation, your risk of a chest infection is slightly raised. You will be seen by a physiotherapist during your stay in hospital. They will teach you deep breathing exercise which you will be asked to do daily. You will also be encouraged to get up and move around as early as possible following your operation.

## **Bleeding problems**

Sometimes the wound drains do not drain all the blood away completely and after removal of the drains a collection of blood (haematoma) sometimes develops under the breast or abdominal wounds. The resulting pressure is painful, and could compromise the blood supply of the reconstructed breast.

## **Wound infection**

Patients may develop a wound infection that requires antibiotics. An infection will delay the healing process and it may delay any further oncology treatments that you require. Infection may also affect the way that the scars will heal. If you felt like you were running a temperature or if there was any redness or heat on your reconstructed breast or abdomen then contact your GP or breast reconstruction nurse specialist as you may need a course of antibiotics.

## Abdominal bulge and hernia

This is a rare complication following a TRAM flap reconstruction which would require further surgical repair. Despite careful repair of the abdomen a small percentage (5%) of women may develop an abdominal hernia. It is due to the removal of the abdominal muscle, which may weaken the abdominal wall. Surgeons insert a supportive mesh to replace the muscle and help prevent this happening. It is possible, although uncommon, for this mesh to become infected. If this were to happen, you may notice additional tenderness, swelling or heat in your abdomen and you may develop a temperature. If you notice any of these symptoms then contact your breast reconstruction nurse as soon as possible. You may also notice some asymmetry on your abdomen after the operation

## Pneumothorax

A pneumothorax is an unwanted collection of air between the lung and chest wall that causes the lung to collapse. This is a rare complication but is a potential risk when the surgeon is finding the blood vessels within your chest wall or during the micro surgery to join the vessels from the flap to the chest wall. If this were to happen, your surgeon may simply monitor you with x-rays over the course of a few weeks to see that the excess air is being absorbed and your lung is re expanding. If a large area of lung has collapsed, your surgeon may need to insert a small chest tube to remove the air and allow the lung to re expand.

## Vein grafts

Most patients undergoing DIEP reconstruction do not require extra vein grafts. However in a small number of cases (5-8%) the blood is unable to get out of the flap through the deeper vein that the flap is raised on. In these cases the blood is able to drain via a more superficial vein. To facilitate this, the vein is either joined back onto the main draining vein or sometimes a vein graft will be used. Vein grafts can be taken from the upper arm or the inner lower leg. This would leave an extra scar in these areas and the leg scar can be quite uncomfortable.

## What about the scarring?

You will have noticeable, permanent scars from the suture lines, which will vary from one woman to another but should not be visible under normal clothing or the average underwear/swimwear. You will have scarring on your breast as well as a long hip to hip scar on your abdomen. Over the weeks and months following surgery initially scars can become thicker, red, possibly lumpy and uncomfortable. The abdomen wound can feel tight because of the amount of tissue removed and unnecessary tension will cause problems with wound healing and wider scars. Gradually they become less obvious, usually fading over 2-3 years. Your breast reconstruction nurse specialist will give you specific scar management advice following your operation.

## Further surgery

Sometimes an operation to reshape your remaining natural breast may be advised to achieve better symmetry. It would not be considered until at least 6-9 months after your operation, to allow the reconstructed breast to settle into its final shape. This may involve reducing the size of your natural breast or lifting it to reduce its natural droop. This involves further scarring on an otherwise normal breast and may involve repositioning the nipple, which can affect sensation. Some women prefer slight asymmetry rather than go through another operation, for others it is important to create as close a match as possible. If you find the lack of symmetry unacceptable, discuss this with your surgeon or breast reconstruction nurse specialist.

Nipple and areola (coloured area surrounding nipple) reconstruction is also possible, usually as the final operation once the reconstructed breast has settled into its final shape. This means your surgeon can accurately position the nipple so it matches the position of the nipple on your natural breast. A reconstructed nipple will not function or have the same sensation as a natural nipple. 3D nipple tattooing is also available either as a standalone procedure or in conjunction with a nipple reconstruction. Silicone nipples are also available. These can be stuck onto your reconstructed breast to give an even appearance.

## What about checking my breasts after reconstruction?

Reconstruction has no known effect on the recurrence of disease in the breast, nor does it generally interfere with chemotherapy or radiation treatment, should cancer reoccur. Any reoccurrence of cancer can still be detected easily. It is vital to continue checking both your natural breast and the area of your reconstructed breast after surgery. Your reconstructed breast will not need imaging for breast cancer screening, but you will still be invited for imaging of your natural breasts.

### The 'New You'

At first your new breast might not really feel like 'you', it will take some time to get used to your new shape. Your reconstructed breast may feel firmer and look rounder or flatter than your natural breast. It will also not move in the same way that your natural breast will. There is often much less sensation in the reconstructed breast. It is important you wait for several months after your operation for the skin and muscle to stretch and for your reconstructed breast to settle into its final shape before deciding how happy you are with the final result. For most mastectomy patients breast reconstruction dramatically improves their appearance, self-confidence and quality of life following surgery. Keep in mind that the desired result is improvement not perfection.

**If you have any questions please contact the breast reconstruction nurse specialist.**

Monday-Friday 09:00-16:30

**01392 402707**

**You can contact Otter Ward out of hours**

**01392 402807**

The Trust cannot accept any responsibility for the accuracy of the information given if the leaflet is not used by RD&E staff undertaking procedures at the RD&E hospitals.

© Royal Devon and Exeter NHS Foundation Trust

Designed by Graphics (Print & Design), RD&E