

Therapy Services

Postoperative Advice and Exercises following Deep Inferior Epigastric Perforators (DIEP) Surgery

February 2021

Great Staff – Great Care – Great Future

INTRODUCTION

This leaflet has been produced to give you general information about your rehabilitation following DIEP breast surgery. If you have any questions about your surgery or any of the information contained within this leaflet, please ask a member of the healthcare team.

WHY DO I NEED TO DO THE EXERCISES?

The exercises described in this leaflet are for anyone who has undergone DIEP breast reconstruction surgery. They have been approved by plastic surgeons and chartered physiotherapists.

The exercises are designed for use in the days and weeks after your surgery and will help promote the healing process following your operation. They will also help you regain the range of movement you had in your arm(s) before the procedure.

CAN THERE BE ANY COMPLICATIONS OR RISKS?

There is a small risk of muscle strain if you do not follow the advice in this leaflet correctly. Some muscle discomfort is normal after exercising but this should improve after a couple of days. If this does not settle, stop doing the exercises and consult your doctor or the nurses in the Breast Care Department at your appointment.

HOW DO I PREPARE FOR THE EXERCISES?

Please read the information leaflet. Share the information it contains with your partner and family (if you wish) so that they can be of help and support. There may be information they need to know, especially if they are taking care of you following your operation.

SUMMARY OF THE REHABILITATION PROCESS DURING YOUR HOSPITAL STAY

Day 1 – You should start the breathing and circulatory exercises described below and you will be assisted into a chair at your bedside with the physiotherapy team or nursing staff

Day 2 – You can begin to mobilise short distances with support from the physiotherapy team or nursing staff as required

Day 3 – You can begin to walk longer distances on the ward, aiming for independence and may complete a stair assessment with the physiotherapy team

Day 4 – You can begin basic exercises for your tummy, arms/shoulder as instructed by your physiotherapist. You will also complete a stair assessment, if required, with the physiotherapy team if you have not already done this on Day 3. At this point you may be discharged from the ward once the full team on the ward are happy with your progress.

BREATHING EXERCISES

Start these simple exercises on day 1. Continue until you are able to walk around the ward.

Regular deep breathing exercises will help to:

1. Keep your chest clear
2. Ease nausea
3. Relax and calm you
4. Ease any pain caused by trapped wind

Your knees will be bent up gently with 2-3 pillows underneath

- Take a slow deep breath in and allow your stomach to rise
- Hold for a moment, and then gently sigh out
- Repeat 5 times
- Rest and take a few normal breaths in and out
- Then do 5 more deep breaths

Try to do these every hour during the day.

If you feel the need to cough, the least painful and most effective way is to gently press a rolled up towel against your stomach and then cough.

Alternatively, place the towel as above then do a short, forced breath out through an open mouth as if steaming up a mirror (this is called huffing).

CIRCULATION EXERCISES

These exercises will help keep your blood flowing whilst you are less active. Your muscles work as a pump and help your circulation:

- Stretch your legs out and begin by circling your feet. Next, bend your ankle up and down
- Squeeze your buttocks together and hold for about 5 seconds then relax
- Tighten your thigh muscles and hold for 5 seconds then relax
- Clench a fist, hold for 5 seconds then stretch out your fingers
- Bend and straighten your elbow, holding each position for 5 seconds

Repeat these exercises 3-5 times per hour.

Try not to cross your legs and ankles at all times.

WHEN CAN I GET OUT OF BED?

- Early mobility is a priority. You will be assisted to sit out in a chair on the first day after your operation
- Generally you will be able to walk by the second day after your operation
- When you first start mobilising try to stand and walk as normally as you can. However, initially you may find bending forward from the waist more comfortable as it reduces the pull on your stomach

HOW TO REGAIN NORMAL POSTURE

Once the abdominal wound is healed, gentle stretching of the abdominal wall can be commenced to regain normal posture and prevent tight scar tissue forming.

For 2 or 3 times a day stand in front of a mirror if possible. You should be stood as straight as you comfortably can, with your arms by your side, elbows straight and palms facing towards your body:

- Take a breath in and gently squeeze your shoulder blades together, and turn your palms so they face forwards
- Hold for 5-10 seconds
- Repeat 5-10 times

EXERCISES FOR DAY 4 ONWARDS

By now you should be aiming to gradually reduce the number of pillows underneath your knees in bed at night until you are able to lie flat.

You can now start to introduce the following exercises. Remember that these exercises should not cause pain. Do not exercise if you feel unwell or are in pain. Start gently and progress at a speed which suits you.

ABDOMINAL MUSCLE EXERCISES

Repeat each exercise 3 - 5 times gradually building up to 10 times, as you feel able to do so. Each group of exercises should be done 3 times per day lying on your bed

1. Pelvic Tilting

- Lie on your back, knees bent, feet flat. Place a pillow under your head
- As you breathe out draw your tummy button towards your spine. Gently tilt your pelvis and flatten the small of your back into the bed.
- Hold for a few seconds and then relax



2. Knee Rolling

- Lie in the same position as exercise 1
- Draw your tummy in. Slowly lower your knees a little to one side and then to the other side
- Stop and relax in the middle, remembering to maintain relaxed abdominal breathing throughout



3. Deep Abdominals

- Lie on your back, knees bent, feet flat
- Place one pillow under your head
- Breathe in, gently letting your tummy rise
- As you breathe out gently draw your tummy button towards your spine
- Hold for a few seconds and then relax. Rest for a few seconds and repeat
- Aim to build up gradually – holding your tummy in for a maximum of 10 seconds, repeating it up to 10 times

Remember: Keep your back still and do not hold your breath

NECK EXERCISES

For 3 times a day:

- Try to stretch your neck by standing as tall as possible, keeping your chin tucked in
- Then turn your head from side to side, looking over each shoulder as far as is comfortable. Repeat 5 -10 times.
- Again starting with a tall posture, bend your neck from side to side trying to bring your ear as close to your shoulders as is comfortable. Repeat 5 -10 times

SHOULDER EXERCISES

For 3 times a day:

Shoulder exercises will help you regain the arm movement you had before your operation. After lymph node surgery, exercises should be progressed more slowly. Your physiotherapist will advise you on this.

Normal movement should return within 6 – 8 weeks.

1. Shoulder Shrugs & Circles



- Lift both shoulders up towards your ears
- Hold for 5 - 10 seconds then slowly lower them back down and relax. Repeat 5 - 10 times
- Gently rotate both shoulders forwards and upwards, then slowly backwards and downwards to make a circle
- Switch and repeat the motion in the opposite direction
- Repeat 5 - 10 times

2. Assisted Arm Lift



- Clasp your fingers together in front of your chest and point with your elbows out to the side
- Slowly lift your arms upwards until your arms are at shoulder level
- Hold for a few seconds and then slowly return to the starting position
- Repeat 5 - 10 times

3. Bent Arm Exercises



- Place your hands on your shoulder and tuck your elbows into your side
- Raise your elbows forwards up to shoulder level and then back down as comfort allows
- Take your elbows out to the side and then to shoulder level, returning them to your sides
- Circle your elbows using a variation of the above exercises
- Repeat each exercise 5 - 10 times

4. Hair Brushing

With your affected arm, try to comb and brush your hair ensuring that you keep your neck as straight as possible

To start you may just brush the closest side of your hair, then as and when discomfort decreases try to brush the other side of your hair. Then progress the exercise by brushing the whole of the hair.

5. Back Scratching



Using both your arms, try to reach behind your back and then slowly move your hands upwards towards your shoulder. Repeat 5 - 10 times

6. Shoulder Blade Squeeze



Sitting upright in a chair with a straight posture, with your arms by your side and elbows bent; gently squeeze your shoulder blades together. Try to keep the level of your shoulders straight and not lift them during the exercise. Repeat 5 - 10 times.

WOUND CARE

When the wound is fully healed the abdominal skin and scar can be firmly massaged in a circular motion with moisturising cream. This will keep your skin and scar supple. If there are any problems with your wound or scar please contact the Breast Care Department (telephone number below).

GENERAL ADVICE FOR WEEK 4 ONWARDS

You may gradually increase the use of your arm / shoulder but avoid any strenuous or repetitive activities or heavy lifting. You may return to work after discussions with your surgeon (depending on the type of work you do).

Driving

You should not drive until you have seen the consultant in your outpatient appointment and are able to perform all manoeuvres, including an emergency stop, and be comfortable wearing a seatbelt. If you choose to drive before your consultant appointment it may result in your insurance no longer being valid.

Please Note: You are **not exempt** from wearing a seatbelt following your operation. To improve comfort and small cushion or folded towel can help maintain comfort.

ADVANCED EXERCISES FROM WEEK 4

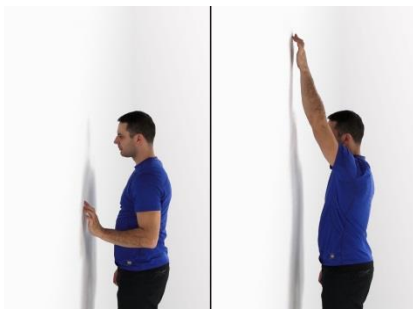
1. Arm Lifts



This exercise can be performed laid down, sat or stood:

- Clasp your hands together and try to keep your elbows straight
- Gently bring your arms up and above your head as far as you feel comfortable
- Hold for 10 seconds
- Repeat 5 - 20 times

2. Wall Climbing



Stand facing the wall and then place both your palms on the wall shoulder level:

- Try to slide your hands up the wall using your fingers to help you until you feel a stretch
- Hold for 10 seconds
- Return to the starting position
- Repeat 5 - 10 times

Please note – it may help to relax if you place your forehead against the wall while performing the exercise.

3. Elbow Push



Lie on your back with your knees bent for comfort and clasp your hands behind your neck with your elbows pointing upwards:

- Keeping your hands in contact with your neck, allow your arms to move apart and towards the floor until you feel a stretch
- You can gently push your elbows to increase the stretch as is comfortable
- Hold for 5 - 10 seconds
- Repeat 5 - 10 times

4. Back drying



With a towel behind your back, gently pull on the towel in a back drying motion. Repeat the same but reverse the hand positions. Repeat each side 5 - 10 times.

5. Side Bends



Sit in a chair clasping your hands together on your lap:

- Gently lift your arms above your head as far as is comfortable (elbows may be relaxed)
- Then gently bend from your waist to one side
- Hold for 1 - 2 seconds
- Return to centre, and repeat bending the opposite way
- Repeat 5 - 10 times

(All photos courtesy of Physiotec™)

ACTIVITY ADVICE

Walking

As soon as you are discharged from the hospital, try to complete two short walks per day gradually increasing the pace and distance that you walk.

Week 6 - 12

With approval from your consultant you may gradually introduce more strenuous activities. You should have regained your normal movements in your arm / shoulder.

Week 12 – you may return to competitive sporting activities:

Swimming

Swimming helps with relaxation; the buoyancy assists you to exercise and the resistance of the water helps to increase strength and cardiovascular fitness.

After 6 weeks you may begin gentle leisure swimming but your wounds must be fully healed before you go swimming to reduce risk of infection.

Gym

At 6 weeks you may return to cardiovascular work. At 8 weeks you may return to resistance/weight training (including a rowing machine).

Exercise Classes

From week 6 you can gently start or recommence an exercise class. We recommend classes that include stretching, toning and core stability strengthening such as Pilates or Yoga.

Ensure that you pace yourself and inform the instructors prior to starting the class.

Participation in other sporting activity should be discussed on an individual basis with your consultant.

USEFUL CONTACTS

Should you feel you require any further physiotherapy after you have been discharged from the hospital, then please contact your consultant or doctor directly who may then refer you onto an outpatient physiotherapist.

Should you require further advice on the issues contained in this leaflet, please do not hesitate to contact

Ward 16 Castle Hill Hospital (01482) 468616

Physiotherapy Dept (01482) 626712

Breast Care Dept (01482) 622631
(Clinic Appointments)

Information about you

We collect and use your information to provide you with care and treatment. As part of your care, your information will be shared between members of the healthcare team, some of whom you may not meet. Your information may also be used to help train staff, to check the quality of our care, to manage and plan the health service and to help with research. Wherever possible we use anonymous data.

We may pass on relevant information to other health or social organisations that provide you with care. All information is treated as strictly confidential and is not given to anyone who does not need it. If you have any concerns please ask your doctor, or the person caring for you.

Under the General Data Protection Regulation and the Data Protection Act 2018 we are responsible for maintaining the confidentiality of any information we hold about you. For further information visit the following page: [Confidential Information about You. www.hey.nhs.uk/privacy/data-protection](http://www.hey.nhs.uk/privacy/data-protection)

If you or your carer needs information about your health and wellbeing and about your care and treatment in a different format, such as large print, braille or audio, due to disability, impairment or sensory loss, please advise a member of staff and this can be arranged.

This leaflet was produced by the Physiotherapy Department, Hull University Teaching Hospitals NHS Trust and will be reviewed in **February 2024**.

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